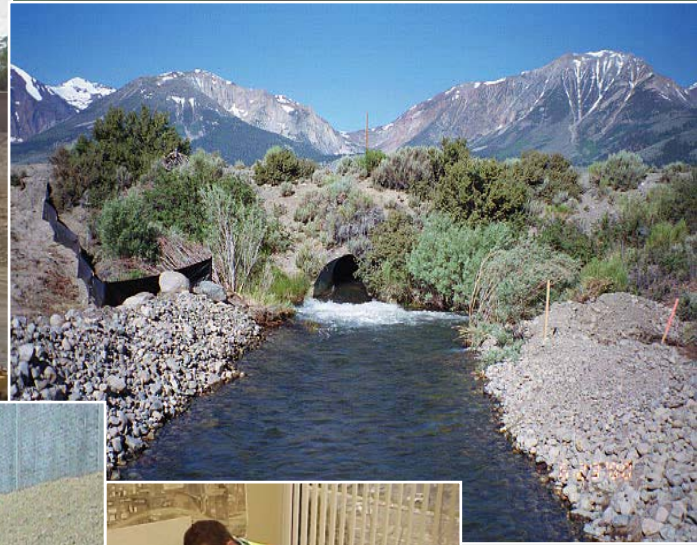


# Water Pollution Control Compliance on Construction Sites for Resident Engineers



# Why Are You Here?

---

- ➔ To improve your skills as an RE as they relate to Water Pollution Control on Construction Sites
- ➔ To learn who the important players are and how they can assist you
- ➔ To learn what your responsibilities are - before, during, and after construction





# Introduction

---

## ➡ Course Highlights

- ⇒ **Introduction**
- ⇒ **Role of the Players**
- ⇒ **Management Tools**
- ⇒ **RE Responsibilities Before Construction**
- ⇒ **RE Responsibilities During Construction**
- ⇒ **Project Closeout Responsibilities**



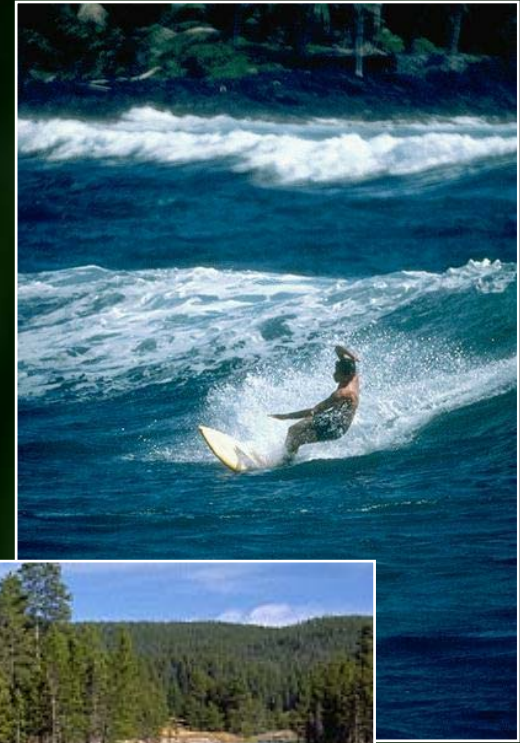
# Introduction

---

## Water Pollution Prevention

### ⇒ Overall Purpose

- ⇒ To Reduce Potential Environmental and Human Health Impacts
- ⇒ Comply with State and Federal Laws



# Introduction

---

- ➔ Construction site erosion can cause impacts to the environment greater than nature's own erosion process.





# Introduction

- ➔ Sediment, the most common pollutant washed from construction sites, clogs the gills of fish, blocks light transmission and increases ocean water temperature .....harming aquatic life, and disturbing the food chain



# Introduction

---

## Construction Site Water Pollution Prevention

- ➔ Minimize the Potential Impact that Construction Activities may have on Water Bodies and Protect their Beneficial Uses for Future Generations



# Introduction

---

- ➔ Clean Water Act
- ➔ Permit CAS000003,  
Caltrans Statewide  
Municipal
- ➔ Permit CAS000002,  
General Construction  
Activities
- ➔ Caltrans Statewide  
Storm Water  
Management Plan  
(SWMP)





# Role of the Players

---

## ➡ Course Highlights

- ⇒ Introduction
- ⇒ **Role of the Players**
- ⇒ Management Tools
- ⇒ RE Responsibilities Before Construction
- ⇒ RE Responsibilities During Construction
- ⇒ Project Closeout Responsibilities



# Role Of The Players

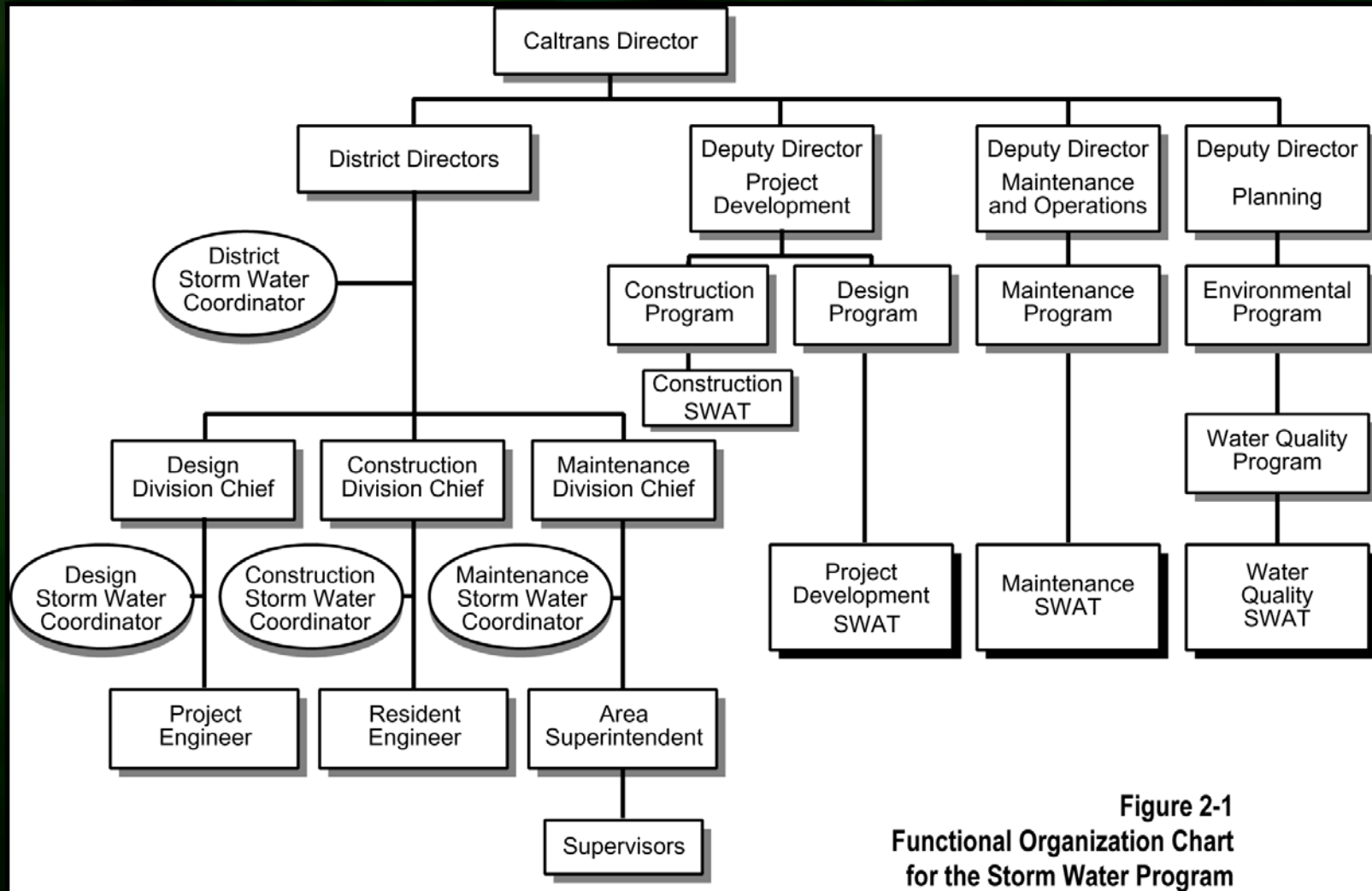


Figure 2-1  
Functional Organization Chart  
for the Storm Water Program

# Role Of The Players

---

## ➡ District Construction Division Players

- ⇒ **Construction Division Chief**
- ⇒ **Construction Storm Water Coordinator (CSWC)**
- ⇒ **Resident Engineer (RE)**
- ⇒ **Contractor**

## ➡ District NPDES Storm Water Coordinator



# Construction Division Chief's Role

---

- ➔ Implementation of policies, procedures, personnel and equipment.
- ➔ Includes ensuring compliance with all elements of the SWMP for entire Construction Division.

# Construction Storm Water Coordinator's Role

---

- ➡ CSWC conducts inspections to assist the RE with water pollution control compliance.
- ➡ Assist the RE reviewing the SWPPP/WPCP for adequacy.

# Resident Engineer's Role

---

- ➔ Administers construction contracts.
- ➔ Responsible for ensuring water pollution control compliance for the contract.
- ➔ Approves SWPPP/WPCP.
- ➔ Conducts Inspections.
- ➔ Oversees contractor self-monitoring.
- ➔ Forwarding non-compliance documentation.
- ➔ Maintaining documentation.
- ➔ Impose sanctions for non-compliance of the contract.



# Contractor's Role

---

- ➔ Carry out the contract per the plans, specifications and permits.
- ➔ Develop and implement water pollution control elements, including:
  - ⇒ **Preparation of a SWPPP/WPCP.**
  - ⇒ **Inspection and maintenance of BMPs.**
  - ⇒ **Construction of permanent BMPs.**
  - ⇒ **Completion of the Annual Compliance Certification.**

# District NPDES Storm Water Coordinator's Role

---

- ➔ Liaison with the Water Quality Program.
- ➔ Liaison activities include:
  - ⇒ **Conduct meetings relating to storm water management issues with other District Coordinators and MS4 permittees.**
  - ⇒ **Communications with the RWQCB representatives.**
  - ⇒ **Assist the District Divisions.**

# Management Tools

---

## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ **Management Tools**
- ⇒ RE Responsibilities Before Construction
- ⇒ RE Responsibilities During Construction
- ⇒ Project Closeout Responsibilities





# Permits

- ➔ **General Construction Permit CAS000002 - The '02 permit**
- ➔ **Caltrans NPDES Permit CAS000003 - The '03 permit**
  - ⇒ The 03 Permit requires that Caltrans' construction program complies with the General Construction Activity Permit for construction sites that disturb 5 acres or more
  - ⇒ Both permits can be viewed and downloaded from the State Water Resources Control Board website, [www.swrcb.ca.gov](http://www.swrcb.ca.gov)

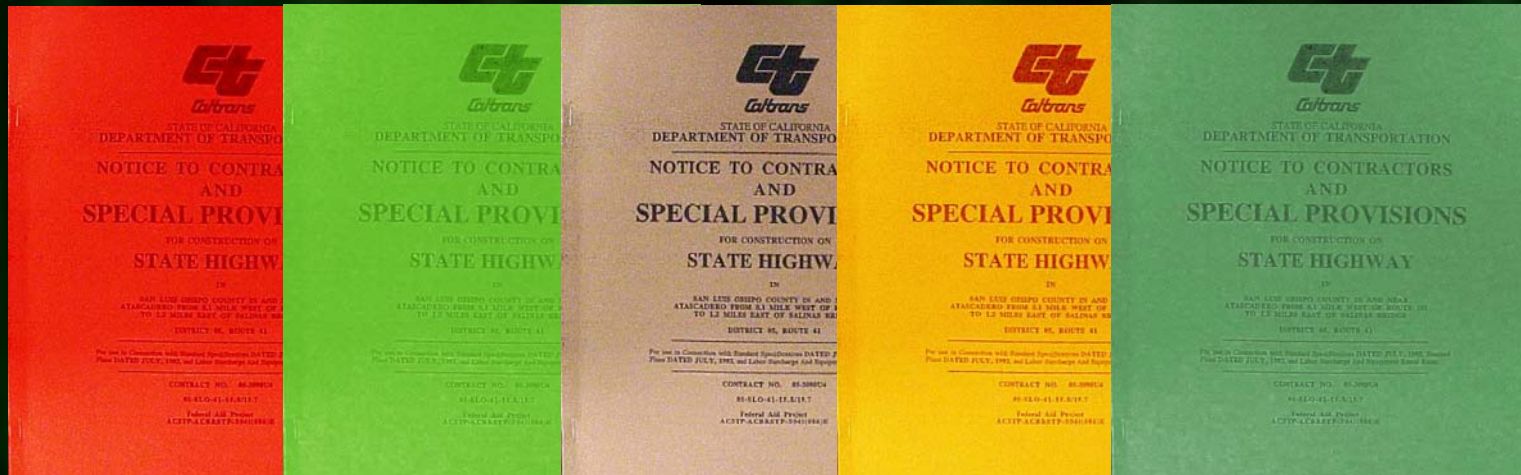
# Specifications

---

- ➔ **Caltrans Standard Specifications, Section 7-1.01G**
  - ⇒ Requires contractors to prepare and implement a program to control water pollution effectively during the construction of all projects.
  - ⇒ SWPPP/WPCP and BMPs must meet requirements of this section
  
- ➔ **Sections 10,16,18, and 20**

# Contract Special Provisions

## ➔ Contract Special Provisions - Section 10



# Manuals

## ➔ Caltrans Storm Water Quality Handbooks

- ➔ Project Planning and Design Guide
- ➔ SWPPP / WPCP Preparation Manual
- ➔ Construction Site BMPs Manual
  - 1997 Contractors Guide

Get Manuals online at

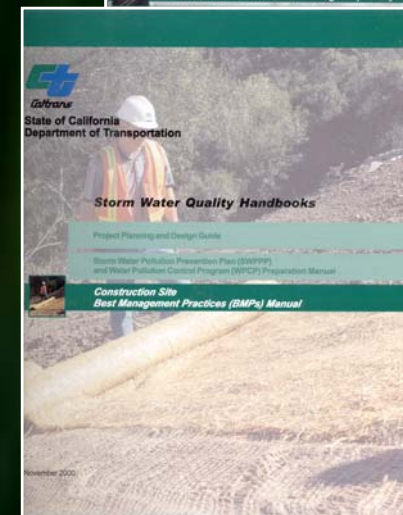
<http://www.dot.ca.gov/hq/construc/stormwater.html>

or hard copies are available from Caltrans Publications

## ➔ Revised Construction Manual

## ➔ New BMP Field Guidance Manual

## ➔ New Dewatering Guide





# Manuals

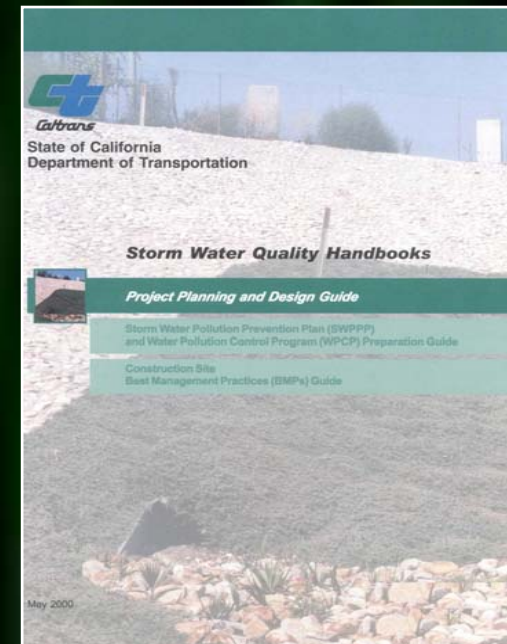
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# Manuals

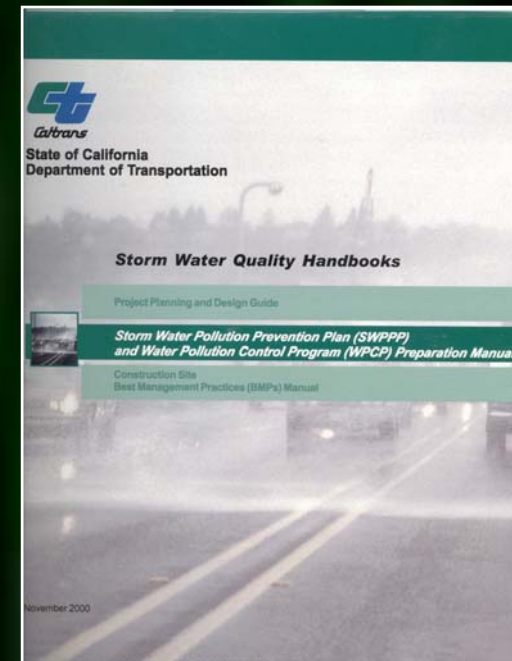
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# Manuals

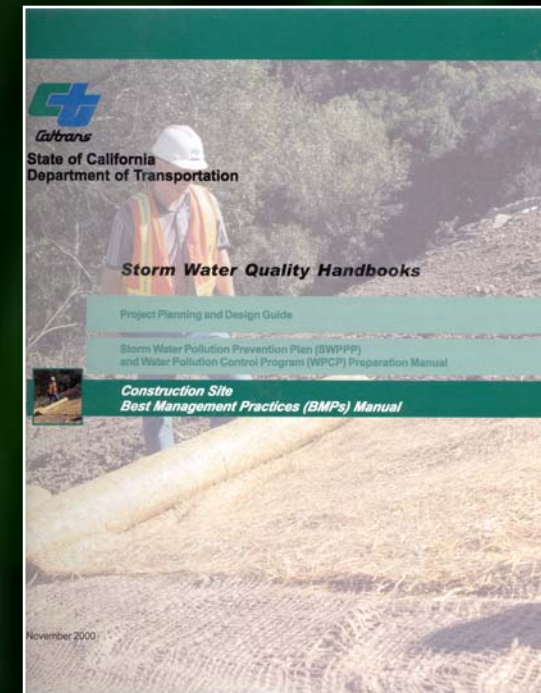
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- ⇒ Construction Site BMPs Manual

## ➔ Revised Construction Manual

## ➔ New BMP Field Guidance Manual

## ➔ New Dewatering Guide



# Manuals

## ➔ Construction Site BMPs Manual

- ⇒ Guidelines for the selection and implementation of construction site BMPs
- ⇒ Major changes compared to 1997 Handbooks
  - Area requirements/Tables
  - Fiber rolls
  - Stockpile management
  - Entrances / exits
  - Dewatering



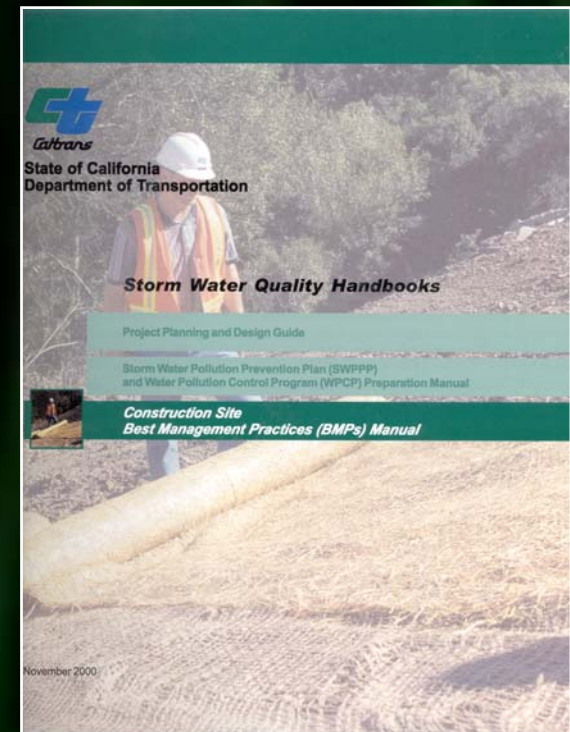


# Manuals

## ➔ Construction Site BMPs Manual

⇒ Major changes compared to 1997 Handbooks (cont)

- New BMPs
- New # system
- Dropped BMPs
- Revisions to soil stabilizers
- Street sweeping
- Gravel bag berm



# Manuals

## ➤ Caltrans Storm Water Quality Handbooks

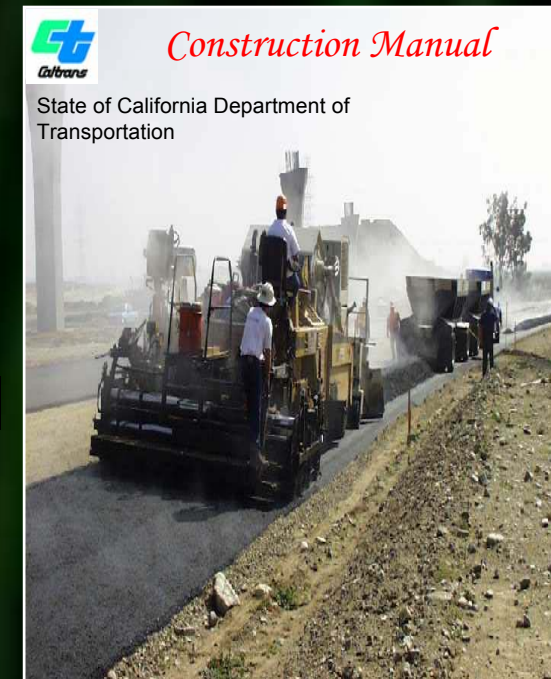
- ⇒ Project Planning and Design Guide
- ⇒ SWPPP / WPCP Preparation Manual
- ⇒ Construction Site BMPs Manual

## ➤ Revised Construction Manual

- ⇒ <http://www.dot.ca.gov/hq/construc/>

## ➤ New BMP Field Guidance Manual

## ➤ New Dewatering Guide



# Manuals

---

## ➔ Caltrans Storm Water Quality Handbooks

- ⇒ Project Planning and Design Guide
- ⇒ SWPPP / WPCP Preparation Manual
- ⇒ Construction Site BMPs Manual

## ➔ Revised Construction Manual

## ➔ New BMP Field Guidance Manual

## ➔ New Dewatering Guide

# Manuals

## ➔ **BMP Field Guidance Manual**

- ⇒ “Tool Box” for field personnel
- ⇒ Principals of Erosion and Sediment Control
- ⇒ Trouble Shooting Guide
- ⇒ BMP Selection Installation and Maintenance





# Manuals

---

## ➔ Caltrans Storm Water Quality Handbooks

- ⇒ Project Planning and Design Guide
- ⇒ SWPPP / WPCP Preparation Manual
- ⇒ Construction Site BMPs Manual

## ➔ Revised Construction Manual

## ➔ New BMP Field Guidance Manual

## ➔ New Dewatering Guide

# Construction Storm Water Coordinator (as a tool)

---

- ➔ In addition to already stated functions:
  - ⇒ Assist during pre-construction meetings.
  - ⇒ Information and training source.
  - ⇒ Liaison with other District personnel during construction.
  - ⇒ Liaison to Regulatory agencies.
  - ⇒ Liaison to the NPDES Storm Water Coordinator.

# Other Available Tools

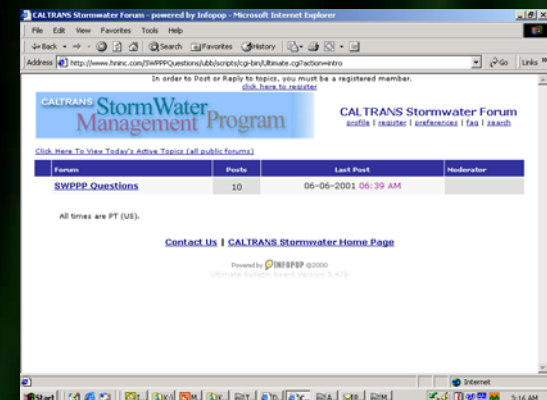
## ➡ Construction Storm Water Pollution Prevention Bulletins

[www.dot.ca.gov/hq/env/stormwater/index.htm](http://www.dot.ca.gov/hq/env/stormwater/index.htm)



## ➡ Online Forum

[www.SWPPPQuestions.com](http://www.SWPPPQuestions.com)



## ➡ Storm Water Task Force



# RE Responsibilities Before Construction

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## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ **RE Responsibilities Before Construction**
- ⇒ RE Responsibilities During Construction
- ⇒ Project Closeout Responsibilities





# RE Responsibilities Before Construction

---

## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ **RE Responsibilities Before Construction**
- ⇒ RE Responsibilities During Construction
- ⇒ Project Closeout Responsibilities

- ➡ Review the RE Pending File
- ➡ Appoint your SWPPP Inspector
- ➡ Conduct Pre-Construction Meetings
- ➡ WPC Strategies
- ➡ Review the SWPPP/WPCP

# Review the RE Pending File

---

- ➡ Topography Map
- ➡ Soils/Geotechnical or Project Materials Report
- ➡ Pre-Construction Storm Water Quality Control Practices
- ➡ Permanent Post-Construction Storm Water Control Measures



# Review the RE Pending File

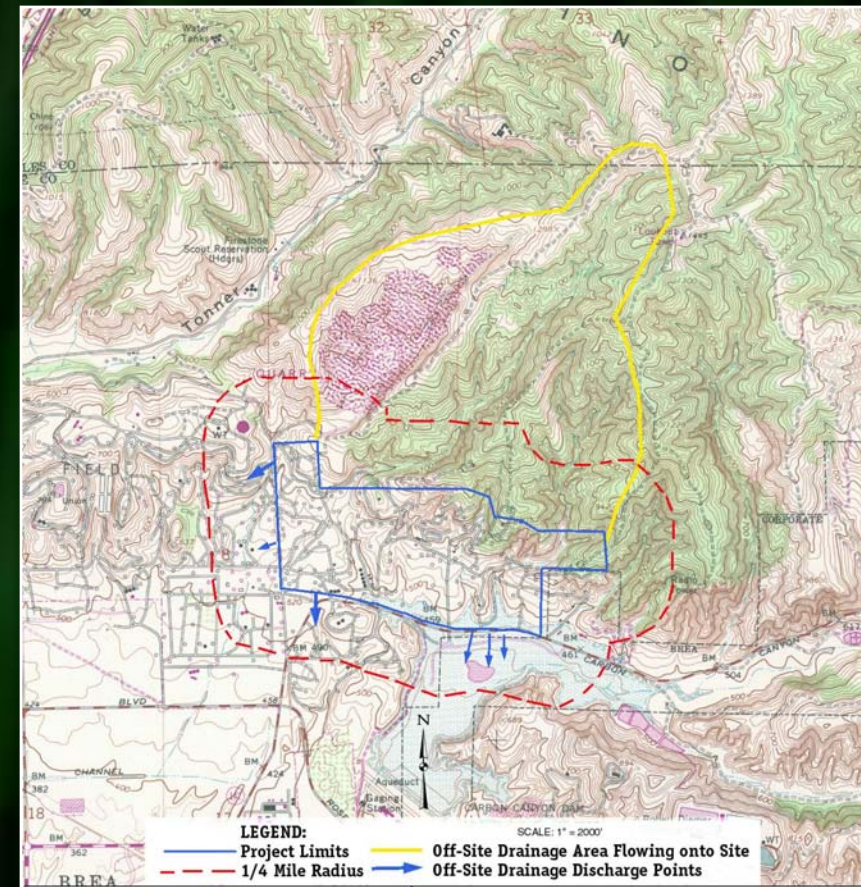
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- ➡ Other Plans / Permits
- ➡ Copy of Project Drainage Report
- ➡ Construction Site Estimates
- ➡ Copy of Submitted Notification of Construction (NOC)

# Review the RE Pending File

## Topography Map

- ➔ Extends approximately 400 meters (quarter mile) beyond the boundaries of the construction site.
- ➔ A U.S. Geological Survey (USGS) quad map is recommended.
- ➔ Shows the construction site and water pollution control related items.

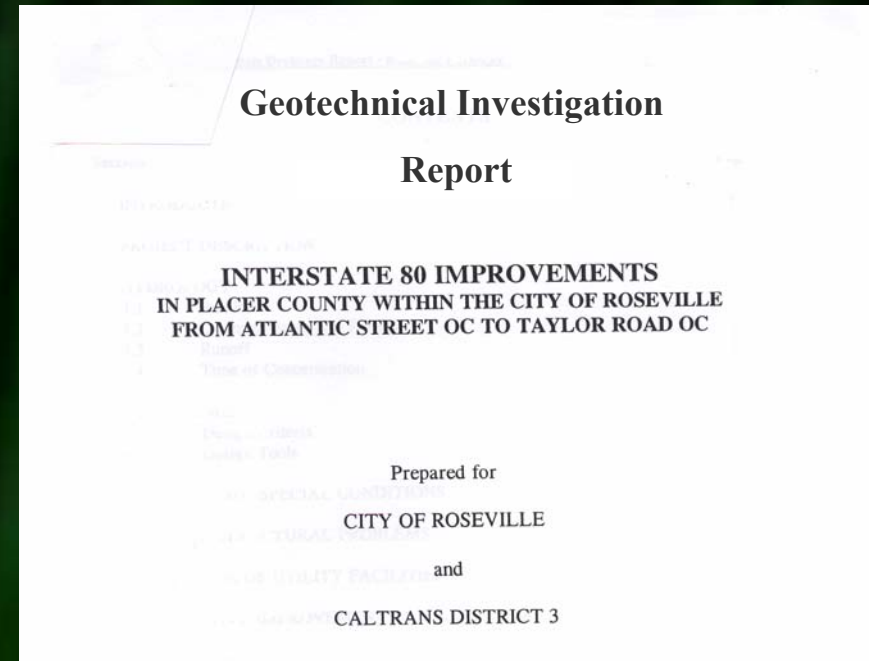




# Review the RE Pending File

## Soils / Geotechnical / Materials Report

- ⇒ Toxic History of the Site
- ⇒ The Nature of Fill Material
- ⇒ Existing Data Describing the Soil



# Review the RE Pending File

## Existing Control Practices

- ➡ Practices that are already in place to reduce sediment and other pollutants in storm water discharges.
- ➡ Examples: sedimentation ponds, oil/water separators, spill containment facilities, curb and gutter, concrete drainage systems, etc.
- ➡ Note if there are none.



# Review the RE Pending File

## Post-Construction Controls

- ➡ Permanent BMPs to reduce pollutants in storm water discharges.
- ➡ Includes Operation & Maintenance procedures.





# Review the RE Pending File

## ➔ List of other permits or plan requirements

### ➔ Examples of other permits:

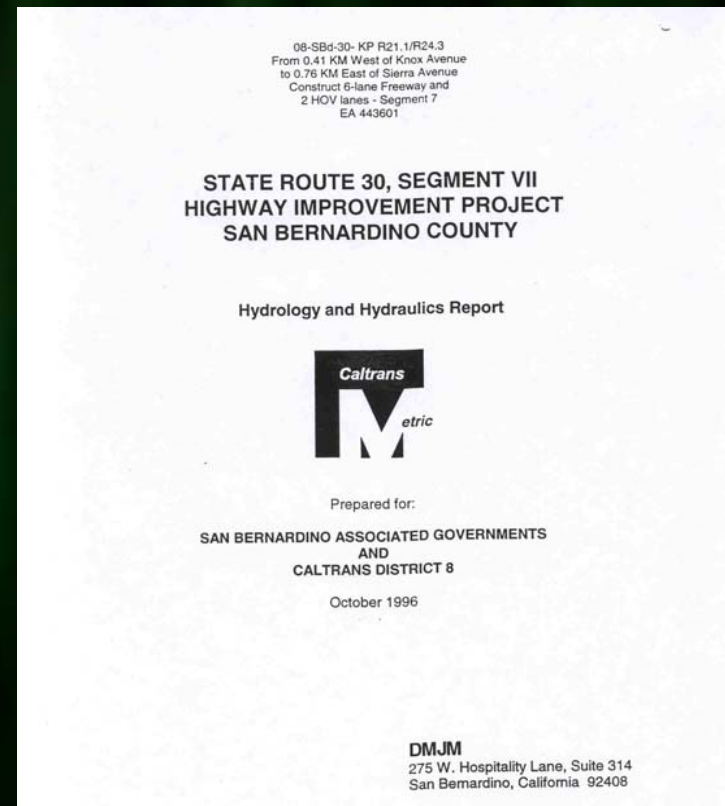
- ⇒ Army Corps of Engineers 404 permit
- ⇒ RWQCB 401 permit
- ⇒ RWQCB de minimus discharge permit
- ⇒ California Department of Fish and Game streambed alteration agreement or 1603 permit
- ⇒ Dewatering permit





# Review the RE Pending File

- ➔ **Drainage Report**
- ➔ **Typical information includes:**
  - ⇒ **Hydrology Maps**
  - ⇒ **Drainage Boundaries**
  - ⇒ **Runoff Concentrations**
  - ⇒ **Runoff Coefficients**
  - ⇒ **Basin Sizing Calculations**
  - ⇒ **Offsite Runoff Calculations**



# Review the RE Pending File

- ➔ **Construction Site Estimates**
- ➔ An estimate of construction site area in square meters (acres)
- ➔ Runoff coefficient of construction site - before and after construction
- ➔ An estimate of impervious construction area - before and after construction

## Attachment D

### Computation Sheet for Determining Runoff Coefficients

Total Site Area = 171,965 m<sup>2</sup> (A)

#### Existing Site Conditions

Impervious Area 1 = 88,157 m<sup>2</sup> (B)

Impervious Area Runoff Coefficient 2, 4 = 0.95 (C)

$88157 \times 0.95 = 83,749 \text{ m}^2$  (B x C)

Pervious Area 3 = 83,808 m<sup>2</sup> (D)

Pervious Area Runoff Coefficient 4 = 0.4 (E)

$83808 \times 0.4 = 33,523 \text{ m}^2$  (D x E)

Sum:  $83749 + 33523 = 117,272$  (B x C) + (D x E)

Divide:  $140738/171965 = 0.68$   $\frac{(B \times C) + (D \times E)}{(A)}$

Existing Area Runoff Coefficient = 0.68 (F)

#### Proposed Site Conditions

Impervious Area 1 = 100,036 m<sup>2</sup> (G)

Impervious Area Runoff Coefficient 2, 4 = 0.95 (H)

$100036 \times 0.95 = 95,034 \text{ m}^2$  (G x H)

Pervious Area 3 = 71,929 m<sup>2</sup> (I)

Pervious Area Runoff Coefficient 4 = 0.4 (J)

$71929 \times 0.4 = 28,771 \text{ m}^2$  (I x J)

Sum:  $95034 + 28771 = 123,805$  (G x H) + (I x J)

Divide:  $123805/171965 = 0.72$   $\frac{(G \times H) + (I \times J)}{(A)}$

Existing Area Runoff Coefficient = 0.72 (F)

# Review the RE Pending File

## ➔ Notification of Construction (NOC)

➔ Submitted to RWQCB at least 30 days prior to construction.

➔ Equivalent to Notice Of Intent (NOI).

➔ Included information:

⇒ Tentative start date and duration

⇒ Estimate of affected acres and vicinity map

⇒ RE in charge and telephone number

⇒ Field office information and location map

State of California - Department of Transportation (Caltrans) CP-CEM-2002 4/10/2000

**NOTIFICATION OF CONSTRUCTION**  
IN COMPLIANCE WITH CALTRANS STATEWIDE NPDES STORM WATER PERMIT Order No. 99-06 (DWQ, NPDES No. CA000003)

**I. IDENTIFICATION-Attach Vicinity Map, 1/2 size copy of Title Sheet**

Project	Check One: <input type="checkbox"/> New Substantial or <input type="checkbox"/> Amendment No.	Contract Number EA	Date: MM/DD/YY
City/County	County	Tentative Start Date	Tentative End Date
Route	Post Mile	Estimate Feet	Tentative Date DEQ/DFP Available

**II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS**

<input type="checkbox"/> Region 1, North Coast	<input type="checkbox"/> Region 3, Central Valley	<input type="checkbox"/> Region 4, Lakeview	<input type="checkbox"/> Region 7, Colorado River
<input type="checkbox"/> Region 2, San Francisco Bay	<input type="checkbox"/> Sacramento	<input type="checkbox"/> Death Lake Tahoe	<input type="checkbox"/> Region 8, Santa Ana
<input type="checkbox"/> Region 5, Central Coast	<input type="checkbox"/> Fresno	<input type="checkbox"/> Visalia	<input type="checkbox"/> Region 9, San Diego
<input type="checkbox"/> Region 6, Los Angeles	<input type="checkbox"/> Building		

**III. CALTRANS DISTRICT**

District Number	Project Contact
Address	Position Title
City	Phone ( )

**IV. CONSTRUCTION FIELD OFFICE-Attach Location Map**

Street Address	Construction Contact
Physical Location (if different than address above)	Position Title
City	State
Zip	Phone ( )

**V. CONSTRUCTION SITE INFORMATION**

Description and Type of Work

Additional related required approvals: ☐ DTIC Variance ☐ CWA 404(b) ☐ DFO 1001 ☐ NPDES WDE ☐ Other

Describe:

Total Construction Area	Acres	Barren	Total Disturbed Area	Acres	Barren
Receiving Water Name	Project Is Or Adjacent to Receiving Water?		<input type="checkbox"/> Yes <input type="checkbox"/> No		
Project Discharges to?	<input type="checkbox"/> Groundwater Infiltration	Route Location	<input type="checkbox"/> Unimproved Other System Name:		

**VI. CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Print Type Name: \_\_\_\_\_ Title: \_\_\_\_\_

# What If RE Pending File is Incomplete?

---

- ➡ Determine whether documentation is necessary
  - ⇒ Not all projects need all listed contents of a pending file
  - ⇒ **Whether post construction BMPs are required should come from project development. Attempt communication with responsible party to obtain missing documentation**
- ➡ Call or meet with Project Development, DCSWC, Project Manager
- ➡ Obtain missing documentation from outside source
  - ⇒ **Contractor**
  - ⇒ **CCO**



# RE Responsibilities Before Construction

---

## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ **RE Responsibilities Before Construction**
- ⇒ RE Responsibilities During Construction
- ⇒ Project Closeout Responsibilities

- ➡ Review the RE Pending File
- ➡ **Appoint your SWPPP Inspector**
- ➡ Conduct Pre-Construction Meetings
- ➡ WPC Strategies
- ➡ Review the SWPPP/WPCP

# Appoint The SWPPP Inspector

- ➔ Candidate qualifications:
  - ⇒ Construction inspection experience
  - ⇒ Overall project knowledge
  - ⇒ SWPPP inspector training
  - ⇒ Hydraulics or environmental engineering knowledge
  - ⇒ Landscape engineer



# RE Responsibilities Before Construction

---

## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ Management Tools
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- ➡ Review the RE Pending File
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- ➡ **Conduct Pre-Construction Meetings**
- ➡ WPC Strategies
- ➡ Review the SWPPP/WPCP

# Pre-Construction Meetings

- ➡ State personnel involved with the project.
- ➡ Contractor





# State Personnel Meeting

---

## ➔ Who should attend?

- ⇒ RE
- ⇒ Appointed SWPPP inspector
- ⇒ Project Manager
- ⇒ Project Engineer
- ⇒ Environmental Engineer
- ⇒ Maintenance Representative
- ⇒ DCSWC
- ⇒ Structures Personnel
- ⇒ RWQCB Representative

# State Personnel Meeting

---

- ➔ Discuss project-specific water pollution control issues
  - ⇒ **Other plans and permits**
  - ⇒ **Environmentally sensitive areas**
  - ⇒ **Coordination of Special Provision requirements**
  - ⇒ **The conceptual SWPPP**
  - ⇒ **RE Pending File information**
  - ⇒ **More????**

# Contractor Meeting

- ➔ Who should attend?
  - ⇒ **RE**
  - ⇒ **Contractor's Superintendent**
  - ⇒ **Contractor's Water Pollution Control Manager (WPCM)**
  - ⇒ **Appointed SWPPP Inspector**
  - ⇒ **DCSWC**
  - ⇒ **RWQCB Representative (New)**
- ➔ Can be integrated into the typical pre-construction meeting with the contractor.



# Contractor Meeting

---

- ➔ Discuss project-specific water pollution control issues.
  - ⇒ **Other plans and permits,**
  - ⇒ **Environmentally sensitive areas,**
  - ⇒ **Coordination of Special Provision requirements,**
  - ⇒ **The conceptual SWPPP,**
  - ⇒ **RE Pending File information,**



# Who Wants To Be A Millionaire?

---



# ***Millionaire Review Question #1***

**Permit CAS000003, regulates storm water discharges from?**

**A) Construction sites that disturb over 5 acres**

**B) Industrial activities**

**C) General construction activities**

**D) Caltran's properties, facilities, and activities**

## *Millionaire Review Question #2*

Which of the following is not a new SWPPP requirement?

A) Runon Calcs

B) Schedule

C) Construction  
site estimates

D) Training for  
contractors

# ***Millionaire Review Question #3***

**Which manual(s) will assist RE's in the process of reviewing a contractor's swppp?**

**A) Construction site  
BMP manual**

**B) SWPPP / WPCP  
preparation manual**

**C) SWPPP / WPCP  
review manual**

**D) B and C**



# *Millionaire Review Question #4*

**Which of the following documents will not be found in the RE Pending File?**

**A) Topography map**

**B) Construction site estimates**

**C) List of other permits**

**D) Area requirements/  
tables**

# ***Millionaire Review Question #5***

**The Notification of Construction (NOC) should be submitted when? - and to whom?**

**A) 20 days prior to the rainy season - SWRQCB**

**C) Prior to submission of NOI - EPA**

**D) 30 days prior to construction - SWRQCB**

## ***Millionaire Review Question #6***

**It's required to invite a representative from the RWQCB to attend which meeting?**

**A) State personnel pre-con mtg**

**B) Const. progress mtg**

**C) Contractor pre-con mtg**

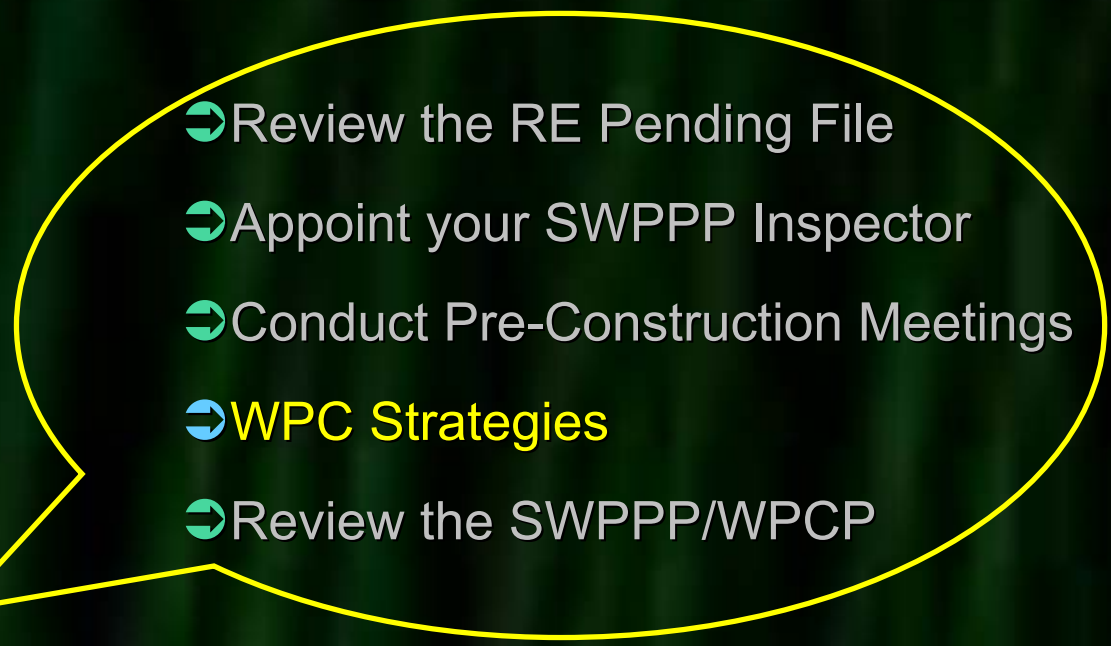
**D) Discharge review mtg**

# RE Responsibilities Before Construction

---

## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Recent Fines
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ **RE Responsibilities Before Construction**
- ⇒ RE Responsibilities During Construction
- ⇒ Project Closeout Responsibilities

- 
- ➡ Review the RE Pending File
  - ➡ Appoint your SWPPP Inspector
  - ➡ Conduct Pre-Construction Meetings
  - ➡ **WPC Strategies**
  - ➡ Review the SWPPP/WPCP



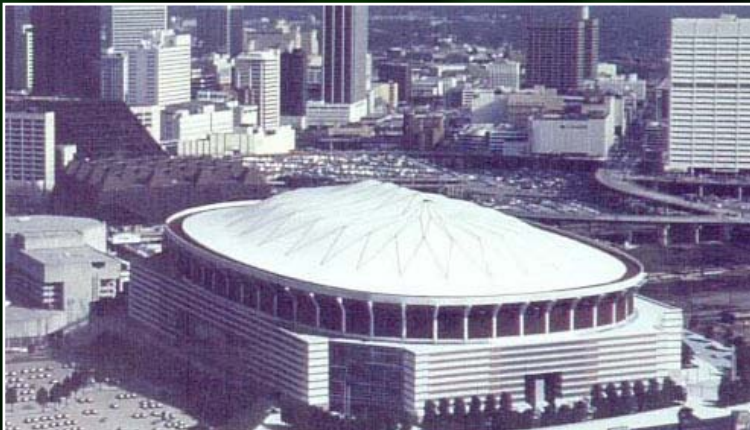
# Water Pollution Control Strategies

- ➔ Prevent storm water contact with the construction site
- ➔ Protect disturbed soil areas (DSAs) from erosion
- ➔ Minimize sediment in storm water before discharge
- ➔ Prevent storm water contact with other pollutants
- ➔ Prevent non-storm water discharges



# Prevent Storm Water Contact With The Construction Site

- ➔ Storm water from the sky - Rainfall
- ➔ Storm Water from adjacent areas - Run-on





# Prevent Storm Water Contact With The Construction Site

➡ A BMP that is practicable to protect DSAs from rainfall is:  
⇒ **Scheduling**



# Prevent Storm Water Contact With The Construction Site

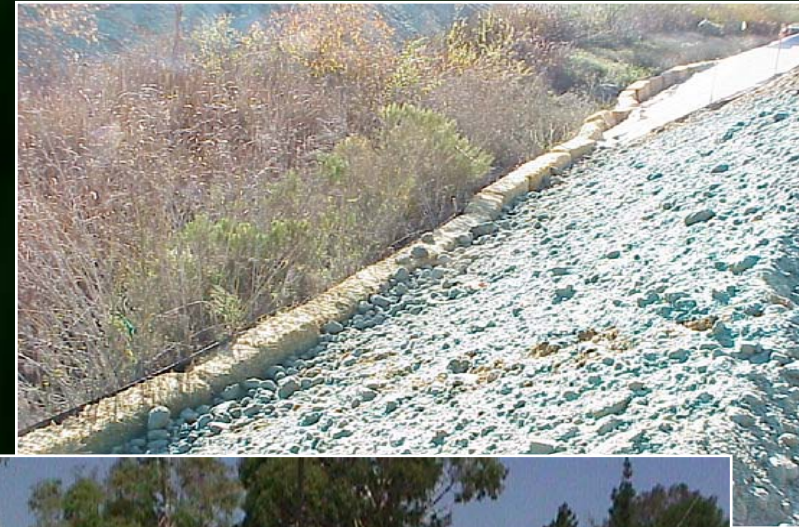
- ➡ A BMP that is practicable to protect DSAs from run-on is:
  - ⇒ **Earth dikes/drainage swales**





# Protect Disturbed Soil Areas From Erosion

- ➔ BMPs to protect DSAs from erosion are:
  - ⇒ Temporary soil stabilization
  - ⇒ Top of slope dikes
  - ⇒ Slope drains
  - ⇒ Gravel bag berms or fiber rolls



# Minimize Sediment In Storm Water Before Discharge

- ➔ Sediment Barriers
  - ⇒ Silt Fence
  - ⇒ Sandbag barrier
  - ⇒ Straw bale barrier



- ➔ Desilting Basins / Sediment Traps





# Prevent Storm Water Contact With Other Pollutants

- ➔ Minimize storage and non-essential activities
- ➔ Store materials/wastes in watertight containers
- ➔ Cover stored materials/wastes
- ➔ Prevent run-on
- ➔ Clean up spills of materials/wastes



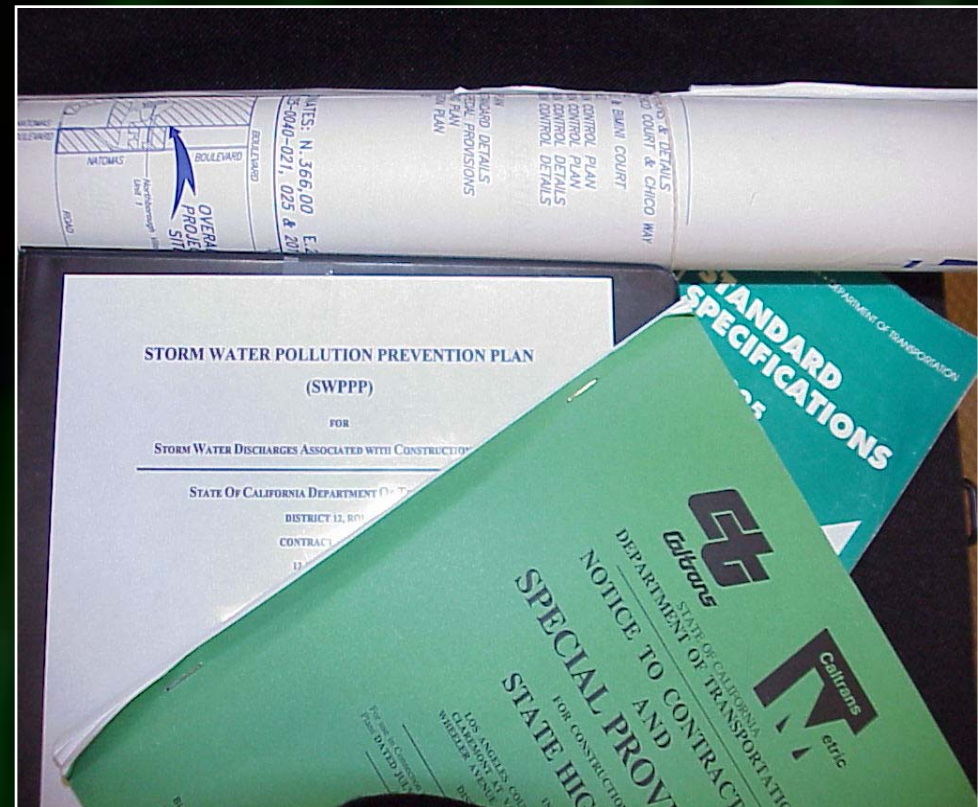
# Prevent Non-Storm Water Discharges

- ➔ Paving and concrete waste
- ➔ Dewatering operations
- ➔ Vehicle and Equipment Cleaning, Fueling, maintenance
- ➔ Sanitary/septic waste
- ➔ Runoff from dust control
- ➔ Materials or chemicals leaks, spills



# Contract Documents

- ➔ Standard Specifications
- ➔ Contract Special Provisions
- ➔ Project Plans





# Standard Specifications

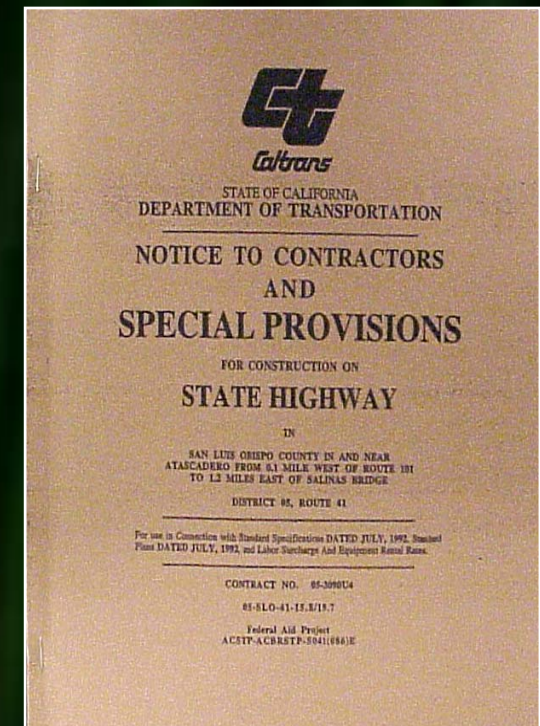
- ➔ **Section 7-1.01G,  
Water Pollution**
- ➔ Section 10, Dust Control
- ➔ Section 16, Clearing and  
Grubbing
- ➔ Section 18, Dust  
Palliative
- ➔ Section 20, Erosion  
Control and Highway  
Planting



# Contract Special Provisions

## ➡ Section 10-1. Water Pollution Control

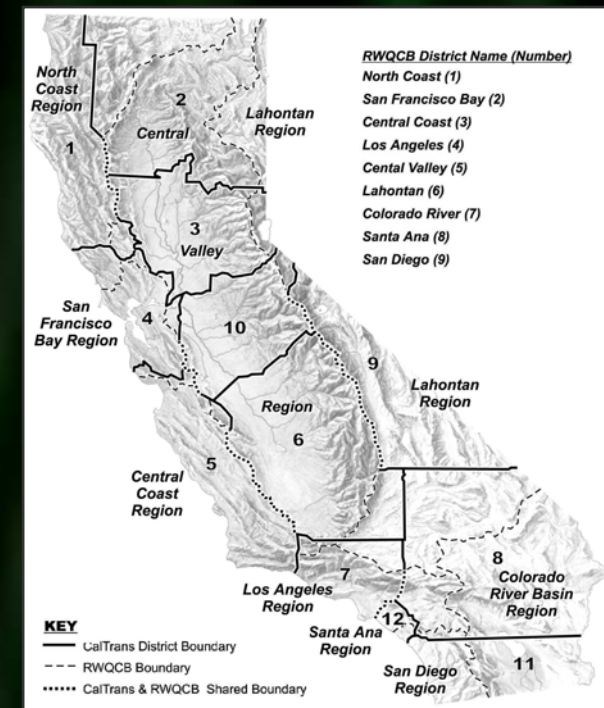
- ⇒ Issued to satisfy the NPDES Permit requirements
- ⇒ Requires use of the Storm Water Quality Handbooks
- ⇒ Details water pollution control requirements



# Contract Special Provisions

## ➔ Contents of Water Pollution Control Specifications

- ⇒ Identifies plan required (SWPPP or WPCP)
- ⇒ Identifies appropriate RWQCB
- ⇒ The SWPPP/WPCP contents and approval process
- ⇒ Additional required BMPs
- ⇒ Identifies cost breakdown requirements
- ⇒ Year round requirements



# Contract Special Provisions

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## ➔ Contents of Water Pollution Control Specs. (Cont.)

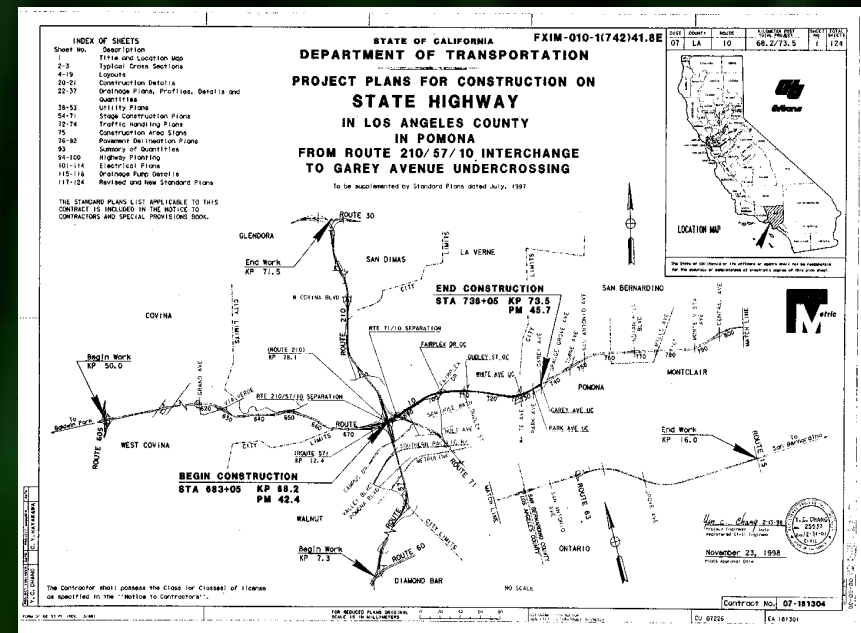
- ⇒ Defines active and non-active Disturbed Soil Areas (DSAs)
- ⇒ Defines the rainy and non-rainy seasons
- ⇒ Defines maximum active DSAs during the rainy season
- ⇒ Inspection and maintenance requirements
- ⇒ Move-In/Out (Permanent Erosion Control) (New)
- ⇒ 50/50 BMP Maintenance sharing (New)
- ⇒ Progress Payments/Detention/Retention



# Project Plans

## ➔ Conduct review of plans in context of water pollution control Specifications

- ⇒ General layout
- ⇒ Existing drainage courses
- ⇒ Facility being constructed or modified
- ⇒ Staging of project
- ⇒ Possible desilting basin locations



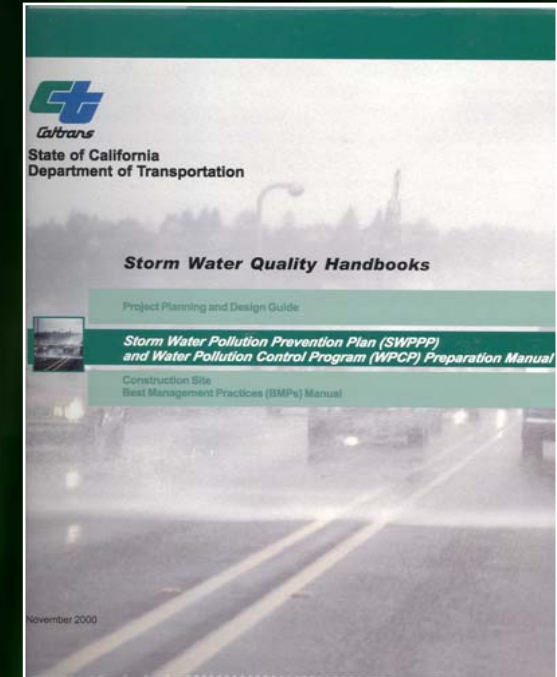
# Using the SWPPP/WPCP Preparation Manual

➔ Appropriate SWPPP and WPCP Preparation Manual Identified in the SSP

⇒ **OLD: The 1997 Contractor's Guide and Specifications**

⇒ **NEW: 2000 SWPPP and WPCP Preparation Manual**

➔ Enlist CSWC assistance for review as necessary



Get Manuals online at

<http://www.dot.ca.gov/hq/construc/stormwater.html>

or hard copies are available from Caltrans Publications

# Projects Under Old Special Provisions

- ➡ If your Contract Special Provisions reference the 1997 storm water quality handbooks:
  - ⇒ Guidelines to assist districts in writing a CCO to comply with new NPDES permits. (CPD 00-12 and 00-12.1)
  - ⇒ CCO required for all on-going SWPPP construction projects
  - ⇒ WPCP projects do not require CCO at this time

State of California Business Transportation and Housing Agency

**Memorandum**

To: ALL CONSTRUCTION SENIORS AND ABOVE  
ALL RESIDENT ENGINEERS

Date: January 22, 2001  
File: CPD 00-12.1

From: DEPARTMENT OF TRANSPORTATION  
CONSTRUCTION PROGRAM

Subject: Addendum, New National Pollutant Discharge Elimination System Permits for Caltrans and Contract Change Order Guidelines for Construction

This addendum updates our September 29, 2000, Construction Program Directive (CPD) 00-12 pertaining to the issuance of contract change orders to comply with the National Pollutant Discharge Elimination System (NPDES) permits and the Caltrans' statewide Storm Water Management Plan (SWMP) dated August 31, 2000. This addendum includes the following additional information: 1) a blanket approval of all contract change orders was granted by the Federal Highway Administration (FHWA); 2) references in the checklist for the relevant NPDES permit requirements and the Storm Water Handbook sections; 3) corrections to the checklist items; and 4) availability of an electronic Microsoft Word version of the CPD attachment on the Construction Program's Intranet site. All changes in the checklist are identified with bolded text or knockout. If contract change orders were initiated or completed pursuant to CPD 00-12, your district construction storm water coordinator should be consulted to determine if revisions or supplemental contract change orders are necessary.

The attached contract change order guidelines are to be used in compliance with the recently adopted NPDES permits and Caltrans' SWMP. These guidelines apply only to projects that require the development of storm water pollution prevention plans (SWPPPs). Projects requiring water pollution control plans (WPCPs) are not regulated by NPDES permits and do not require contract change orders. Projects that are substantially complete without disturbed soil areas also do not require contract change orders. If you are unsure if your project requires a contract change order, please contact your district construction storm water coordinator.

Resident engineers are encouraged to utilize the assistance of the district construction storm water coordinator and Holmes & Narver, Inc. with their review of the existing SWPPP and ensuring that the necessary revisions are included in the contract change orders.

The contract change orders for this CPD do not require FHWA approval. FHWA granted a prior blanket approval for all contract change orders issued pursuant to this CPD on October 10, 2000. A copy of this approval is attached. In addition, the Construction Program's review and approval will follow established requirements and procedures as identified in the Construction Manual.

# Projects Under Old Special Provisions

---

## ➡ CCO Guidelines

- ⇒ Checklist references the relevant NPDES permit requirements and the Storm Water Handbook sections
- ⇒ Guidelines and checklist available on the Construction Program's Intranet site:  
<http://roadware.dot.ca.gov> or from your CSWC



# Manuals

## ⇒ Caltrans Storm Water Quality Handbooks

### ⇒ Construction Site BMPs Manual

- Know and understand this manual



Get Manuals online at

<http://www.dot.ca.gov/hq/construc/stormwater.html>

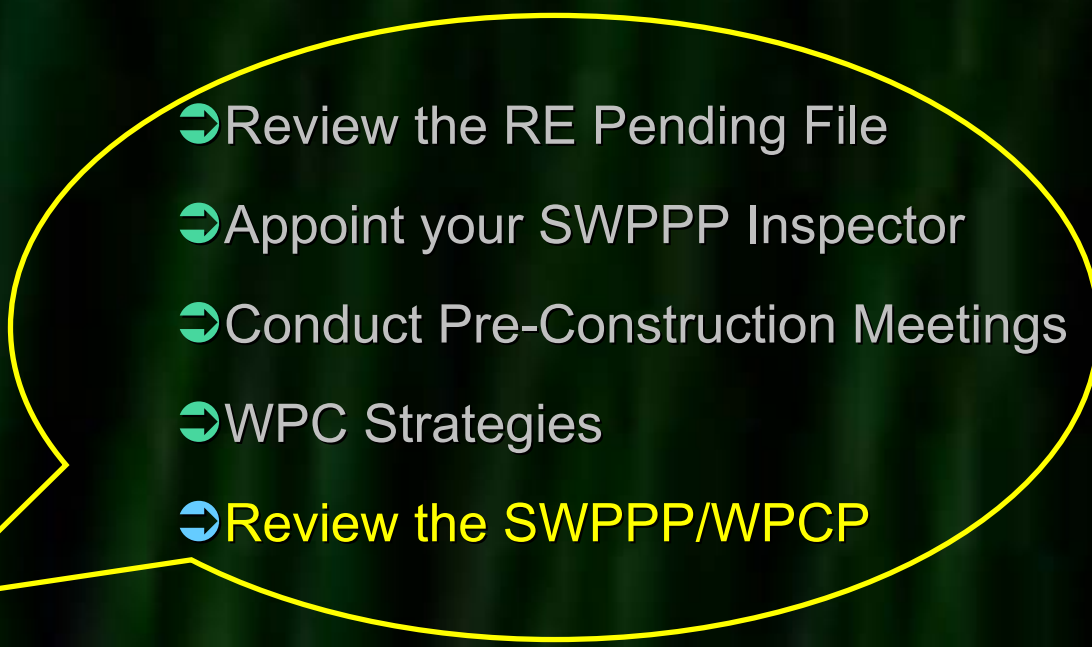
or hard copies are available from Caltrans Publications

# RE Responsibilities Before Construction

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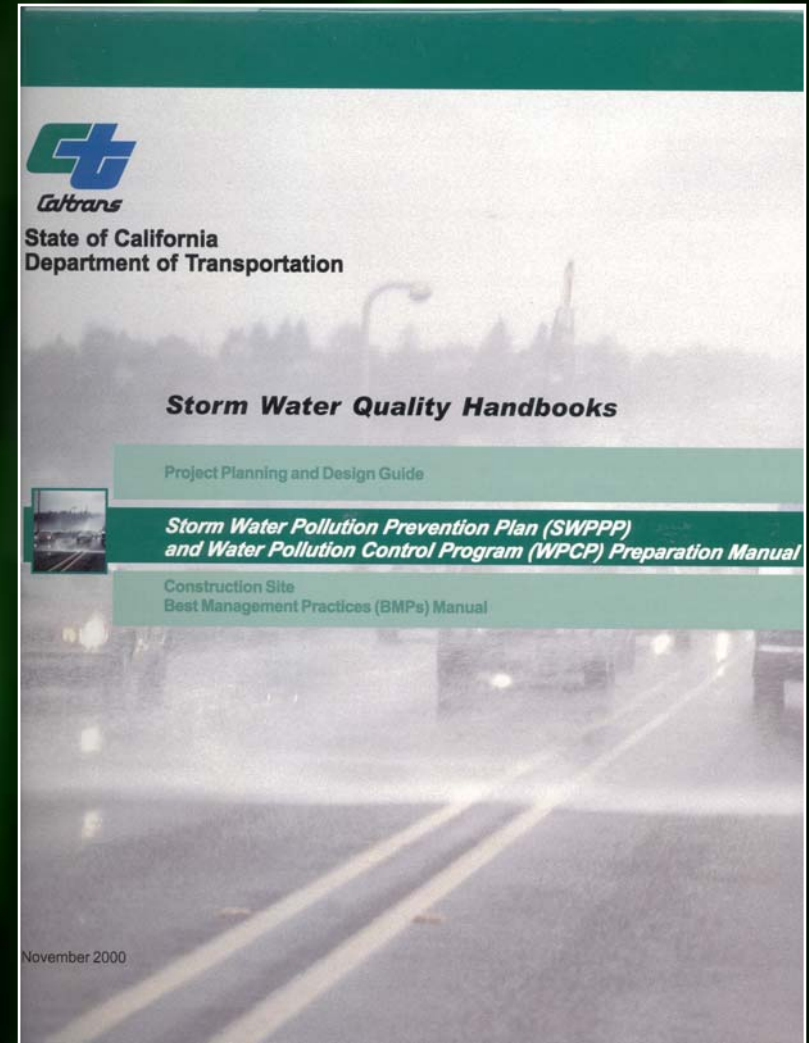
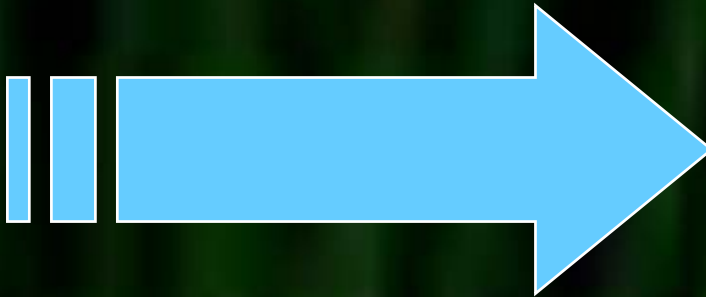
## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Recent Fines
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ **RE Responsibilities Before Construction**
- ⇒ RE Responsibilities During Construction
- ⇒ Project Closeout Responsibilities

- 
- ➡ Review the RE Pending File
  - ➡ Appoint your SWPPP Inspector
  - ➡ Conduct Pre-Construction Meetings
  - ➡ WPC Strategies
  - ➡ Review the SWPPP/WPCP

# Using the SWPPP/WPCP Preparation Manual

- ➔ Let's review a SWPPP
- ➔ Use the Manual



# How is the Manual set up?

## Each Section has:

*INSTRUCTIONS*

....Telling you what is  
necessary in that section

*REQUIRED TEXT*

....Telling the contractor exactly  
what verbiage to use in the document

## Some sections have:

*EXAMPLES*

..... Showing you what the  
section might include



# Title Page

---

## ➔ Section 2, page 7 of 62 of Prep Manual

### ➔ Required information

- ⇒ Storm Water Pollution Prevention Plan
- ⇒ Construction Project Name
- ⇒ Caltrans Contract Number
- ⇒ Identification of Lead Agency (Caltrans or Local Agency)
- ⇒ Contractors Name, Address, Telephone Number, and Contact Person

# Title page (continued)

---

- ⇒ Job Site Address and Telephone Number (if any)
- ⇒ Name of Contractors Water Pollution Control Manager (WPCM)
- ⇒ Name of Company that Prepared the SWPPP
- ⇒ SWPPP Preparation Date



# Table of Contents

---

- ➔ **Preparation Manual page 9 of 62**
- ➔ **Include the Number and Names for each section**
- ➔ **List page number for each subsection**
- ➔ **Include a Tab for each Major Section and Attachments**

# Section 100

---

- ➔ **Preparation Manual page 11 of 62**
- ➔ **SWPPP Certification and Approval**
  - ⇒ 100.1 Initial SWPPP Certification
  - ⇒ 100.2 SWPPP Approval
  - ⇒ 100.3 Annual Compliance Certification



# SWPPP Certification and Approval

---

## ➡ 100.1 Initial SWPPP Certification

- ⇒ Required Text
- ⇒ Project Name
- ⇒ Caltrans Contract Number
- ⇒ Contractors signature, Name, Title, Date, and telephone number
- ⇒ Submitted to the RE for review and approval

## ➡ 100.2 SWPPP Approval

- ⇒ Required Text
- ⇒ RE signature and name
- ⇒ Telephone number
- ⇒ Date signed

# SWPPP Certification and Approval

## ➔ 100.3 Annual Compliance Certification

- ⇒ Preparation Manual page 14 of 62
- ⇒ Required text for this section
- ⇒ Prepared by qualified person
  - List persons name and contact number in the SWPPP
- ⇒ Completed by June 15th
  - Job starting on or after June 15th require certification on the following June 15th
- ⇒ Keep completed and signed copies of the annual compliance certification in this section
- ⇒ Include blank copies of forms in Attachment M

June 2001						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17 Father's Day	18	19	20	21	22	23
24	25	26	27	28	29	30

# Section 200

---

➔ **SWPPP Preparation Manual page 15 of 62**

➔ **SWPPP Amendments**

⇒ 200.1 SWPPP Amendment Certification and Approval

⇒ 200.2 Amendment Log

# 200.1 SWPPP Amendment Certification and Approval

---

## ➔ Required Text

## ➔ SWPPP shall be Amended when:

- ⇒ Changes in construction or operations which may affect the discharge of pollutants to surface waters, ground water, or municipal separate storm sewer system
- ⇒ If any conditions of the Permit are violated
- ⇒ General objective of reducing or eliminating pollutants in storm water discharges has not been achieved
- ⇒ If the RWQCB determines that a Permit violation has occurred
  - Changes implemented in 14 days
- ⇒ When required by the Special Provisions
- ⇒ When deemed necessary by the RE



## 200.2 Amendment Log

---

### ➔ Required text for the log:

- ⇒ Project Name
- ⇒ Caltrans Contract Number
- ⇒ Amendment Number
- ⇒ Date
- ⇒ Brief description of Amendment
- ⇒ Prepared By

# Section 300

---

## ➔ Page 20 of 62 of the Manual

### ➔ Introduction and Project Description

- ⇒ 300.1 Introduction and Project Description
- ⇒ 300.2 Unique Site Features
- ⇒ 300.3 Project Schedule/Water Pollution Control Schedule
- ⇒ 300.4 Construction Site Estimates
- ⇒ 300.5 Contact Information/List of Responsible Parties

# 300.1 and 300.2

## ➡ 300.1 Introduction and Project Description

- ⇒ Provide legal description of the project
- ⇒ Proximity to receiving waters
- ⇒ Identify who owns the drainage system



## ➡ 300.2 Unique Site Features

- ⇒ Provide a brief description of unique features
- ⇒ Significant or high-risk construction activities
- ⇒ Include any features or activities within or adjacent to water bodies

## 300.3

### ➔ **Construction Site Estimates**

- ⇒ Required text
- ⇒ Construction site area
- ⇒ Runoff coefficient before and after construction
  - Include calculations in Attachment D
- ⇒ Percentage impervious area before and after construction
- ⇒ Anticipated storm water run-on calculations
  - Include calculations in Attachment E



# SWPPP Attachments

## ➔ Attachment D

- ⇒ Computation Sheet for determining Runoff Coefficients
- Determines the amount off runoff before and after construction



# SWPPP Attachments

## ➔ Attachment E

### ⇒ Calculation for Storm Water Run-on

- Determines the amount of anticipate storm water run-on
- Helps in designing temporary BMPs to control erosion



# 300.4

- 
- ➔ **Page 22 of 62 of the SWPPP Preparation Manual**
  - ➔ **Project Schedule / Water Pollution Control Schedule**
    - ⇒ Written or graphical schedule
      - Show how the rainy season relates to soil disturbing and re-stabilization activities
    - ⇒ Adequate details for major activities sequenced with implementation of BMPs
      - Project start and finish dates
      - Rainy seasons dates
      - Annual certification
      - Mobilization dates
      - Mass clearing and grubbing/road side clearing dates
      - Major grading/excavation dates
      - Special dates in other permits (Army Corp, Fish and game)

# 300.4

## ⇒ Project Schedule

⇒ Adequate details for major activities sequenced with implementation of BMPs (continued)

- Annual submittal of rainy season implementation -if Required (New)
- Pre-rainy season temporary soil stabilization or Sediment control BMPS (if Required by the Special Provisions)
- Rainy season implementation schedule for soil stabilization, sediment controls, wind erosion controls, tracking controls, non-storm water, waste management and materials BMPs
- Non-rainy season implementation schedule of same





# 300.5

- 
- ➔ **Page 27 of 62 of the Manual**
  - ➔ **Required text**
  - ➔ **Contact Information/List of Responsible Parties**

⇒ List contractors person(s) responsible for water pollution controls during construction

- Name, address, and telephone number

# 300.5

## ➔ Water Pollution Control Manager (WPCM) duties

- Ensuring full compliance with the SWPPP and Permit
- Implementation of erosion and sediment control measures
- Implement all non storm water, materials and waste management activities
- Storm event inspections
- Preparing annual compliance certification
- Ensuring elimination of all unauthorized discharges
- Authority to mobilize crews for immediate repairs
- Coordinate with the RE

# Section 400

## ➔ References

- ⇒ Page 29 of 62 of the SWPPP Preparation Manual
- ⇒ Required text
- ⇒ Identify all Documents Referenced in the SWPPP
  - Project Plans and Specifications
  - NPDES permits
  - Other permits Army Corp, DF&G, DTSC ADL variance, etc.
  - Handbooks, references, manuals, guidance
  - Project reports: geotechnical, soils, materials, drainage
  - Include complete reference name, number, author, date, and revision dates that apply
- ⇒ All referenced materials not attached to SWPPP must be kept on-site and be readily available for review



# Section 500 Body of SWPPP

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- ⇒ **500.1 Objectives**
- ⇒ **500.2 Vicinity Map**
- ⇒ **500.3 Pollutant Source Identification and BMP Selection**
- ⇒ **500.4 Water Pollution Control Drawings**
- ⇒ **500.5 Construction BMP Maintenance, Inspection and Repair**
- ⇒ **500.6 Post-Construction Storm Water Management**
- ⇒ **500.7 Training**
- ⇒ **500.8 List of Subcontractors**
- ⇒ **500.9 Other Plans or Permits**

# 500.1

## ➔ Objectives

## ➔ Required text

- ⇒ Identify all pollutant sources, including sources of sediment that may affect the quality of storm water discharges associated with construction activities from the construction site
- ⇒ Identify non-storm water discharges
- ⇒ Identify, construct, implement in accordance with a time schedule, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water and non storm water discharges during construction
- ⇒ Develop a maintenance schedule for BMP installed during construction to reduce or eliminate pollutants after construction

# 500.2

## ➔ Vicinity Map

⇒ Required text, map size

⇒ A vicinity map and site map are required. Vicinity map shows:

- Outline of site perimeter
- Easily identifiable major roadways
- Geographic features or landmarks
- Water bodies within or adjacent to the project site
- Construction site perimeter
- Known wells
- Outline of offsite drainage areas discharging to the construction site
- Discharge locations
- General topography and geographical features surrounding the site

# SWPPP Attachments

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## ➔ Attachment A

### ⇒ Vicinity Map

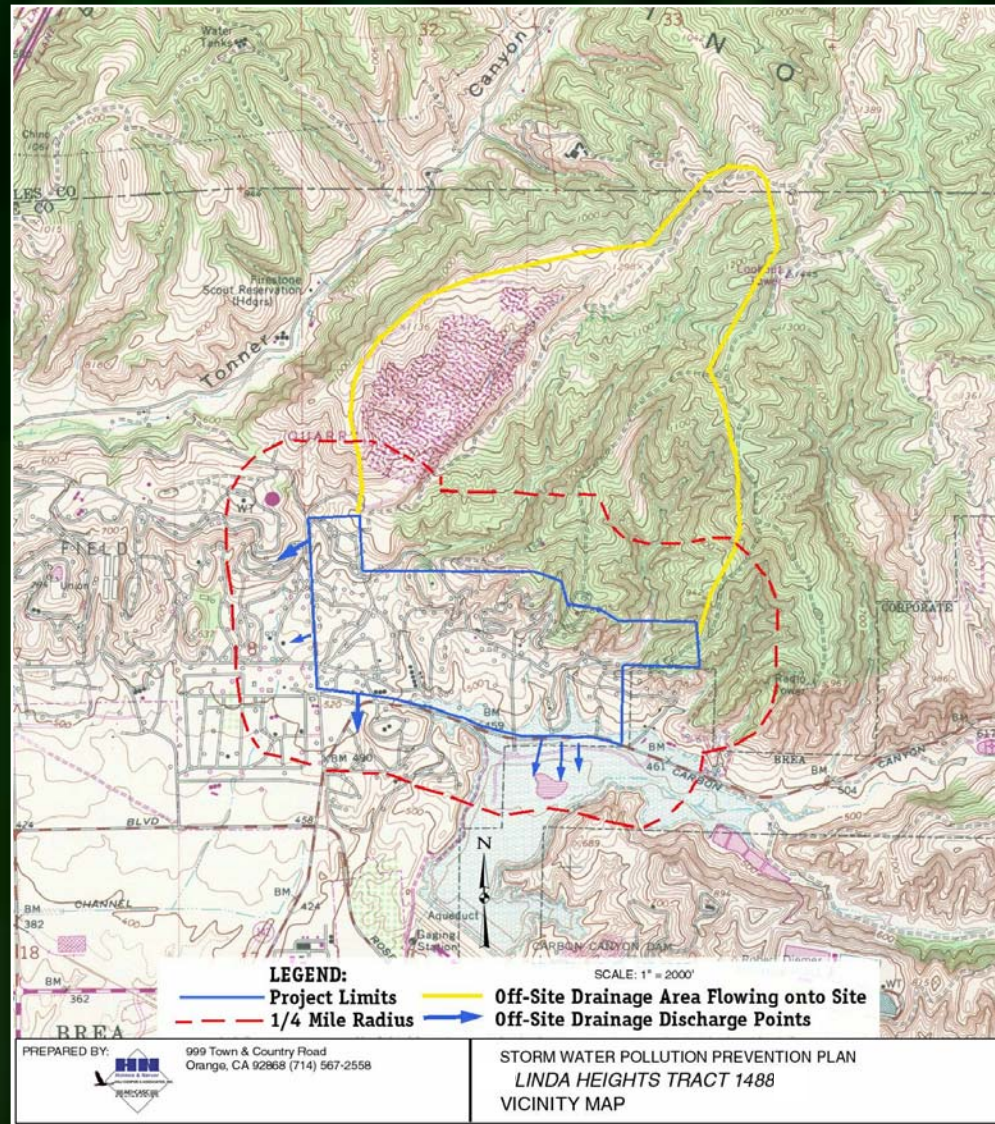
- Use a USGS map or equivalent
- Extend approximately 400 M or one-quarter mile of project boundary
- Show all necessary information

## ➔ Site Map

- Include title sheet from project plans



# Vicinity Map





# 500.3

## ⇒ Page 33 of 62 of the SWPPP Preparation Manual

## ⇒ 500.3 Pollutant Source Identification and BMP Selection

- ⇒ 500.3.1 Inventory of materials and activities that may Pollute Storm Water
- ⇒ 500.3.2 Existing (pre-construction) Control Measures
- ⇒ 500.3.3 Nature of Fill Material and Existing Data Describing Soil
- ⇒ 500.3.4 Soil Stabilization
- ⇒ 500.3.5 Sediment Controls
- ⇒ 500.3.6 Tracking Controls
- ⇒ 500.3.7 Wind Erosion Controls
- ⇒ 500.3.8 Non-Storm Water Controls
- ⇒ 500.3.9 Waste Management and Materials Pollution Controls



## 500.3.1

### ➔ Inventory of Materials and Activities that may Pollute Storm Water

⇒ Required text

⇒ List all construction materials that have the potential to contribute to the discharge of pollutants to storm water

- Vehicle fluids, including oil, grease, petroleum, and coolants
- Asphaltic emulsions associated with paving operations
- Cement materials associated with PCC operations
- Joint and curing compounds
- Paints, solvents and thinners
- Wood products
- Metals and plated products
- Fertilizers, herbicides, and pesticides





## 500.3.1

### ➔ List construction activities that may have the potential to contribute sediment to storm water discharges

- Clear and grub operations
- Grading operations
- Soil import operations
- Utility excavation operations
- Landscaping operations
- Material stockpile operations



## 500.3.2

### ➔ Existing (pre-construction) Control Measures

- ⇒ Required text
- ⇒ Identify any existing control measures in place prior to construction including but not limited to:
  - Detention basins
  - Infiltration basins
  - Sediment basins
  - Oil water separators
  - Bridge and Rock slope protection
  - Existing erosion control measures
  - Existing landscaping
  - Energy dissipaters
  - Lined ditches



## 500.3.3

---

- ➔ **Nature of Fill Material and Existing Data describing Soil**
  - ⇒ **Required text**
  - ⇒ **Describe the conditions of fill material and soil on the construction site**
    - **Type of soil**
    - **Groundwater location**
  - ⇒ **Show and/or describe existing site features that, as a result of past usage may contribute pollutants to storm water**
    - **Toxic materials**
    - **Aerially Deposited Lead (ADL)**

# Break

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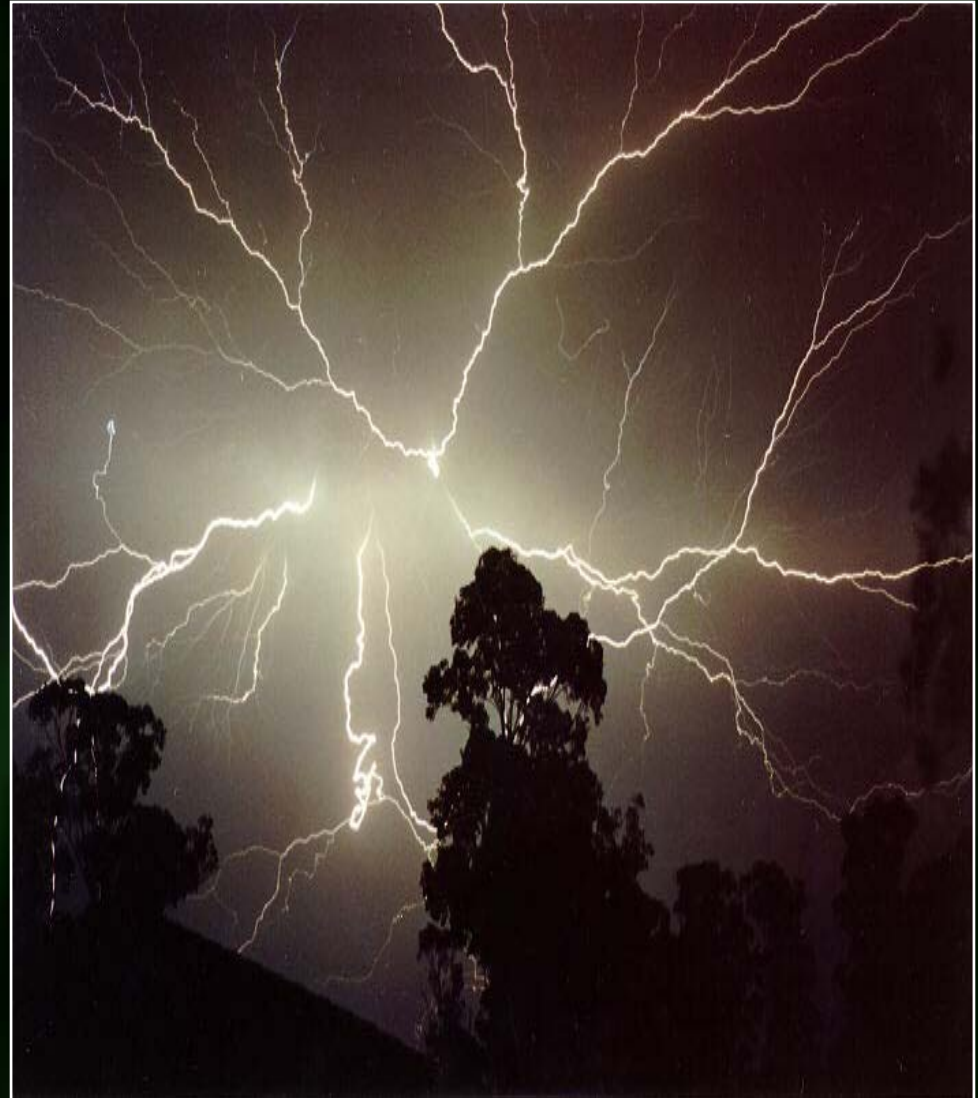


# RE Responsibilities During Construction

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## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ RE Responsibilities Before Construction
- ⇒ **RE Responsibilities During Construction**
- ⇒ Project Closeout Responsibilities



# RE Responsibilities During Construction

---

## ➔ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ RE Responsibilities Before Construction
- ⇒ **RE Responsibilities During Construction**
- ⇒ Project Closeout Responsibilities

- 
- ➔ Starting Construction
  - ➔ Inspections
  - ➔ Notice of Discharge
  - ➔ Payments / Sanctions
  - ➔ Annual Certification / Documentation

# Starting Construction

---

- ➔ No work having the potential to cause water pollution can start before RE approval of the SWPPP/WPCP.
- ➔ Contractor should not:
  - ⇒ **Move-in equipment or pollutant causing materials,**
  - ⇒ **Disturb soil areas, or**
  - ⇒ **track sediment onto adjacent roads.**

# Starting Construction

---

- ➔ Conditional Approval
  - ⇒ **After submission of a SWPPP/WPCP, the RE may allow certain construction activities to start while the revisions are incorporated.**
- ➔ Consider the following:
  - ⇒ **Season**
  - ⇒ **Type of activity**
  - ⇒ **Location of activity**




# RE Responsibilities During Construction

---

## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ RE Responsibilities Before Construction
- ⇒ **RE Responsibilities During Construction**
- ⇒ Project Closeout Responsibilities

- 
- ➡ Starting Construction
  - ➡ Inspections
  - ➡ Notice of Discharge
  - ➡ Payments / Sanctions
  - ➡ Annual Certification / Documentation

# Inspections

## ➡ Contractor

⇒ Review contractor inspection reports.

## ➡ Caltrans

⇒ Inspect the contractor's operations for water pollution control compliance

Attachment H  
Storm Water Quality Construction Inspection Checklist

GENERAL INFORMATION				
Project Name				
Caltrans Contract N°				
Contractor				
Inspector's Name				
Inspector's Title				
Signature				
Date of Inspection				
Inspection Type (Check Applicable)	<input type="checkbox"/> Prior to forecast rain		<input type="checkbox"/> After a rain event	
	<input type="checkbox"/> 24-hr intervals during extended rain		<input type="checkbox"/> Other _____	
Season (Check Applicable)	<input type="checkbox"/> Rainy		<input type="checkbox"/> Non-Rainy	
Storm Data	Storm Start Date & Time:		Storm Duration (hrs):	
	Time elapsed since last storm (Circle Applicable Units)	Min. Hr. Days	Approximate Rainfall Amount (mm)	

PROJECT AREA SUMMARY AND DISTURBED SOIL AREA (DSA) SIZE LIMITS FROM SPECIAL PROVISIONS			
Total Project Area	_____ Hectares	_____ Acres	
Rainy Season DSA Limit	_____ Hectares	_____ Acres	
Field Estimate of Active DSAs	_____ Hectares	_____ Acres	

OTHER REQUIREMENTS				
Requirement	Yes	No	N/A	Corrective Action
<b>Preservation of Existing Vegetation</b>				
Is temporary fencing provided to preserve vegetation in areas where no construction activity is planned?				
Location:				
Location:				
Location:				

# Inspections

## ➡ Frequency

- ⇒ Prior to anticipated storm events
- ⇒ During extended storm events (once each 24-hour period)
- ⇒ After actual storm events
- ⇒ As specified in the Special Provisions



# Inspections

- ➔ Prior to an anticipated storm event, confirm....:
  - ⇒ **Active areas limited as specified (rainy season)**
  - ⇒ **The protection of active and nonactive DSAs**
  - ⇒ **The control of off-site storm water run-on**
  - ⇒ **The condition of drainage systems**
  - ⇒ **BMPs are properly implemented**





# Inspections

- ➔ During a storm event:
  - ⇒ **Best time to review BMPs!**
  - ⇒ **Confirm the proper functioning of BMPs.**
  - ⇒ **Ensure BMPs do not cause flooding.**
  - ⇒ **Repair or revise BMPs as conditions allow.**
  - ⇒ **Good learning experience.**



# Inspections

➔ After an actual storm event:

- ⇒ Identify BMPs that failed.
- ⇒ Identify BMPs that need maintenance.
- ⇒ Repair, revise and maintain BMPs as necessary.
- ⇒ Good learning experience.

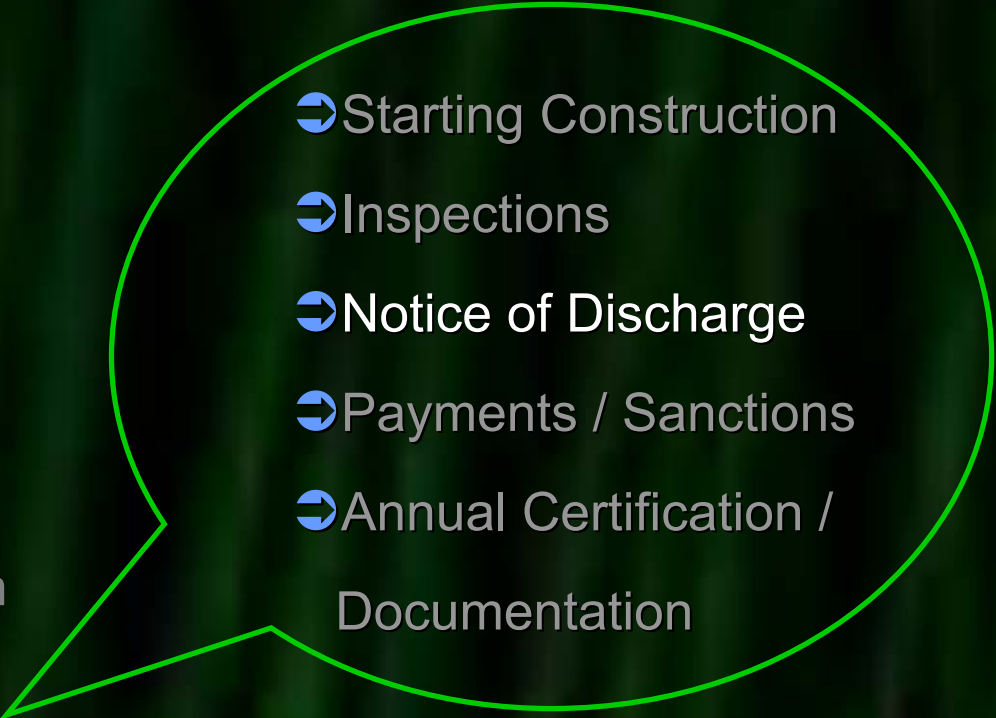


# RE Responsibilities During Construction

---

## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ RE Responsibilities Before Construction
- ⇒ **RE Responsibilities During Construction**
- ⇒ Project Closeout Responsibilities

- 
- ➡ Starting Construction
  - ➡ Inspections
  - ➡ Notice of Discharge
  - ➡ Payments / Sanctions
  - ➡ Annual Certification / Documentation



# Notice Of Discharge

- ➔ Action required upon discovery of a discharge or if the project receives a written notice or order from any regulatory agency
- ➔ Failure to report is subject to \$27,500 fine
- ➔ See Section 9.4 of the SWMP for noncompliance reporting





# Notice Of Discharge

- ➔ **Applicable Discharges:**
  - ⇒ **Storm water discharges that contain sediment from DSAs due to the absence of required, failed or damaged BMPs.**
  - ⇒ **Prohibited non-storm water discharges.**
  - ⇒ **Discharges that violate numeric prohibitions or limitations.**
  - ⇒ **Discharges that violate 404 permits or 401 certifications**



# Notice Of Discharge

- ➔ RE actions with noncompliant discharges:
- ⇒ If possible, cease construction activity and/or mitigate discharge impacts.
  - ⇒ Verbally notify DCSWC.
  - ⇒ Rectify the noncompliant condition.
  - ⇒ Complete Notice of Discharge. Coordinate through DCSWC.

## Attachment K

Notice of Discharge, Written Notice, or Order

### INSTRUCTIONS

- This form will be used to report instances of discharges. The completed form will be submitted to the Resident Engineer within 7 days of the assessment of discharge, written notice or orders from a regulatory agency.

To: Name of Caltrans Resident Engineer

Date: Insert Date

Subject: Notice of Discharge

Project Name: Insert Project Name

Caltrans Contract Number: contract number

In accordance with the Caltrans NPDES Statewide Permit for Storm Water Discharges Associated with Construction Activity, the following instance of discharge is noted:

#### Date, time, and location of discharge

Insert description and date of event

#### Nature of the operation that caused the discharge

Insert description of operation

#### Initial assessment of any impact caused by the discharge

Insert assessment

#### Existing BMP(s) in place prior to discharge event

List BMPs in place

#### Date of deployment and type of BMPs deployed after the discharge.

BMPs deployed after the discharge (with dates)



Caltrans Storm Water Quality Handbooks  
SWPPP/WPCP Preparation Guide  
September 2000

Notice of Discharge  
1 of 2

# Notice Of Discharge

---

## ➡ Contents:


- ⇒ **Date, time, and location of discharge.**
- ⇒ **Nature of operation.**
- ⇒ **Assessment of impact.**
- ⇒ **The BMPs deployed before the discharge.**
- ⇒ **The BMPs deployed after the discharge.**
- ⇒ **Steps planned to reduce, eliminate and/or prevent re-occurrence.**
- ⇒ **An implementation and maintenance schedule.**

# RE Responsibilities During Construction

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## ➔ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ RE Responsibilities Before Construction
- ⇒ **RE Responsibilities During Construction**
- ⇒ Project Closeout Responsibilities

- 
- ➔ Starting Construction
  - ➔ Inspections
  - ➔ Notice of Discharge
  - ➔ Payments / Sanctions
  - ➔ Annual Certification / Documentation



# Progress Payments

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- ➡ Schedule of Values or specific items
- ➡ Manage SWPPP items like other contract items
- ➡ 50/50 Maintenance (New)
- ➡ Additional Move-ins (New)

# Contractual Sanctions

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➡ Available negative reinforcement:

⇒ **Suspending any work that would exacerbate the noncompliance or interfere with or prevent the contractor's efforts to correct the deficiency**

⇒ **Withholding funds from contract progress payments as specified in the contract**

# Contractual Sanctions

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➡ Available negative reinforcement:


- ⇒ **Assessing liquidated damages including passing along fines for permit violations**
- ⇒ **Bringing in a separate contractor or Caltrans Maintenance to complete the work**
- ⇒ **Initiating cancellation of the Construction contract**

# RE Responsibilities During Construction

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## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
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- ⇒ RE Responsibilities Before Construction
- ⇒ **RE Responsibilities During Construction**
- ⇒ Project Closeout Responsibilities

- 
- ➡ Starting Construction
  - ➡ Inspections
  - ➡ Notice of Discharge
  - ➡ Payments / Sanctions
  - ➡ Annual Certification / Documentation



# Annual Compliance Certification

- ➔ Contractor to complete, sign and submit to RE.
- ⇒ Before June 15 of each year
- ⇒ RE to sign and return to contractor.
- ⇒ File in the project records.
- ⇒ \$10,000 fine and/or up to 2 years imprisonment for knowingly falsifying records.

## Attachment M

### Annual Certification of Compliance Form

#### INSTRUCTIONS

- By June 15<sup>th</sup> of each year, the Contractor shall complete and submit this form to the Resident Engineer for approval as required in Section 100.3 of the SWPPP. Annual certification of compliance is based on the site inspections required in the SWPPP.
- Completed and signed Annual Certifications and Approvals shall be included in Section 100.3 of the SWPPP following the required text of the section.
- This Annual Certification of Compliance form does not need to be completed at the initial approval, but it shall be submitted during the first year of the initial SWPPP approval.

#### Annual Certification of Compliance for the Construction Contractor

Project Name:	_____
Caltrans Contract Number:	_____
Contractor Company Name:	_____
Contractor Address:	_____
Construction Start Date:	_____ Completion Date: _____
Description of Work:	<div style="border: 1px solid black; height: 30px; padding: 2px;">description of work</div>
Work Now in Progress:	<div style="border: 1px solid black; height: 30px; padding: 2px;">work in progress</div>

# Contract Documentation

- ➔ **Category 20 files**
  - ⇒ **SWPPP/WPCP**
  - ⇒ **Amendments**
  - ⇒ **Annual certification**
  - ⇒ **Contractor inspection reports**
  - ⇒ **Caltrans inspection reports**
  - ⇒ **Correspondence with the contractor**
  - ⇒ **SWTF inspection reports**
  - ⇒ **Correspondence with regulatory agencies**

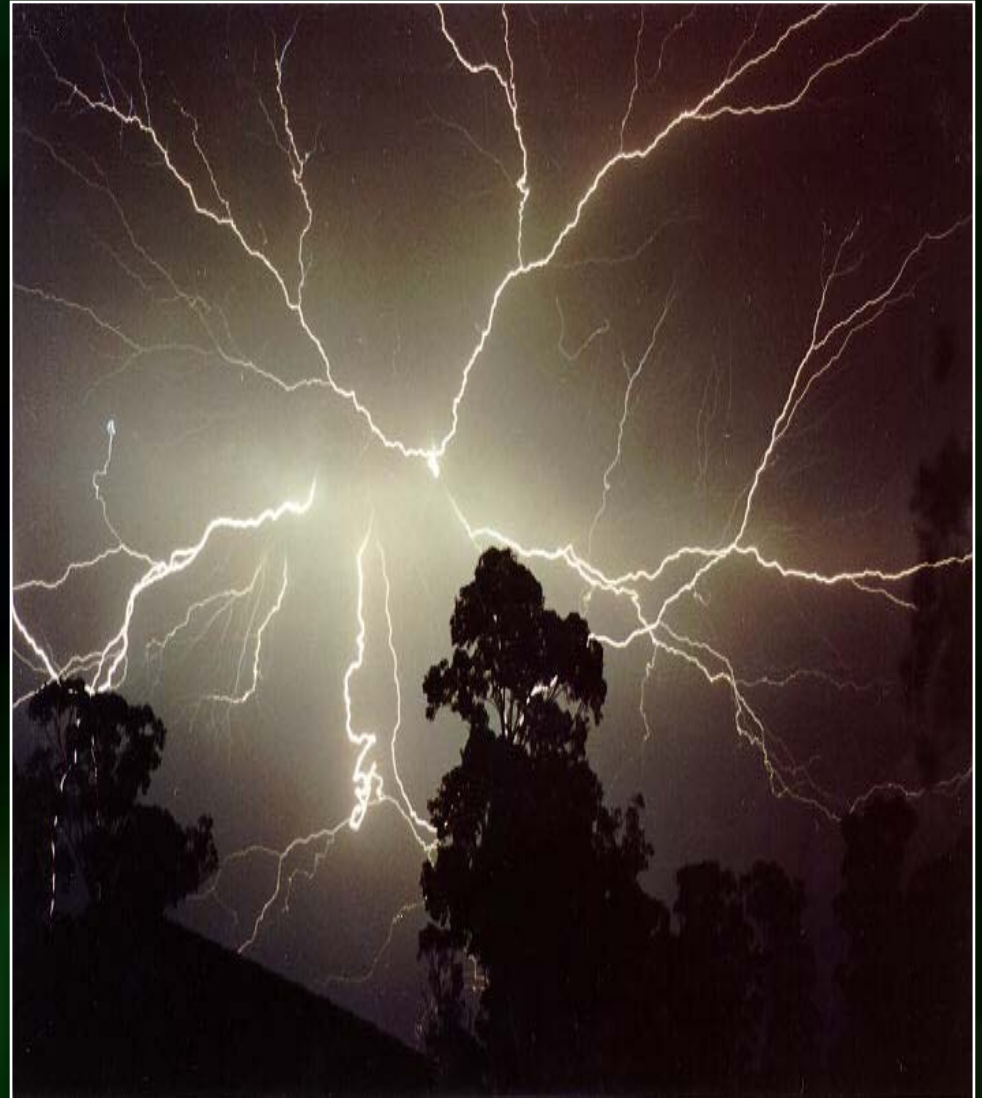


# Project Closeout Responsibilities

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## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ RE Responsibilities Before Construction
- ⇒ RE Responsibilities During Construction
- ⇒ **Project Closeout Responsibilities**



# Project Closeout Responsibilities

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## ➡ Course Highlights

- ⇒ Introduction
- ⇒ Role of the Players
- ⇒ Management Tools
- ⇒ RE Responsibilities Before Construction
- ⇒ RE Responsibilities During Construction
- ⇒ **Project Closeout Responsibilities**

- ➡ Maintenance Review
- ➡ Relief for Maintenance
- ➡ Contract Acceptance
- ➡ Terminating Permit Coverage
- ➡ Post-construction meeting with Design
- ➡ Retention of Records



# Maintenance Review

- ➡ Conduct at 90% complete.
- ➡ Conduct with Maintenance Superintendent/Supervisor
- ➡ During field review, discuss:
  - ⇒ **Temporary BMPs to remain.**
  - ⇒ **Permanent structural storm water BMP devices.**
  - ⇒ **Requested field adjustments.**
- ➡ Furnish information (RE Pending File) pertaining to permanent BMP devices.



# Relief From Maintenance

- ➔ Construction Manual 2-07 & Standard Specifications Section 7-1.15.
- ➔ Upon request, the Contractor may be relieved from the duty of maintaining and protecting certain completed portions of the work.
- ➔ To qualify, such portions must be completed in all respects (including water pollution control) in accordance with the requirements of the contract and to the satisfaction of the Engineer.



# Contract Acceptance

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- ➔ Construction Manual 2-07 & Standard Specifications Section 7-1.17
- ➔ Post construction BMP devices implemented
  - ⇒ **Final erosion control**
  - ⇒ **Planting and irrigation**
- ➔ Temporary controls removed and disposed of





# Terminating Permit Coverage

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- ➔ Complete construction
- ➔ Meet final stabilization requirements
- ➔ Notice of Completion of Construction





# Terminating Permit Coverage

## ➡ Final Stabilization Requirements

⇒ **Special Provision requirements**

⇒ **NPDES permit requirements**

- Areas where construction has been completed in conformance with the contract plans and permanent erosion control is in place and functional.
- Erosion control is considered functional when a uniform vegetative cover equivalent to 70 percent of the native background vegetation coverage has been established or equivalent stabilization measures have been employed.



- STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
- NOTICE OF COMPLETION OF CONSTRUCTION**
- CP-CEM-2003 (NEW 4/12/2000)
- IN COMPLIANCE WITH CALTRANS STATEWIDE NPDES STORM WATER PERMIT Order No. 99-06 DWQ, NPDES No. CAS000003
- I. IDENTIFICATION**
- |                      |        |                       |                                |                 |          |
|----------------------|--------|-----------------------|--------------------------------|-----------------|----------|
| PROJECT              |        | CONTRACT NUMBER<br>EA |                                | DATE MM/DD/YYYY |          |
| CITY (if applicable) | COUNTY | ROUTE                 | KILOMETER POST / POST MILE (S) | START DATE      | END DATE |
- II. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARDS**
- |  |   |   |   |
|--|---|---|---|
| <input type="checkbox"/> Region 1, North Coast       | <input type="checkbox"/> Region 5, Central Valley | <input type="checkbox"/> Region 6, Lahontan | <input type="checkbox"/> Region 7, Colorado River |
| <input type="checkbox"/> Region 2, San Francisco Bay | <input type="checkbox"/> Sacramento               | <input type="checkbox"/> South Lake Tahoe   | <input type="checkbox"/> Region 8, Santa Ana      |
| <input type="checkbox"/> Region 3, Central Coast     | <input type="checkbox"/> Fresno                   | <input type="checkbox"/> Victorville        | <input type="checkbox"/> Region 9, San Diego      |
| <input type="checkbox"/> Region 4, Los Angeles       | <input type="checkbox"/> Redding                  |   |   |
- III. CALTRANS DISTRICT**
- |             |     |                 |  |
|-------------|-----|-----------------|--|
| NAME/NUMBER |     | PROJECT CONTACT |  |
| ADDRESS     |     | POSITION TITLE  |  |
| CITY        | ZIP | PHONE           |  |
- IV. BASIS OF COMPLETION**
- ☐ 1. The construction job is complete and requirements met as of **Date:**

☐ 2. Construction activities have been suspended, as of **Date:** **Expected Start Up Date:**

☐ 3. Site can not discharge storm water to waters of the United States **Reason:**

☐ 4. Discharge is now subject to NPDES Permit **No.** **Date:**
- V. DESCRIPTION OF COMPLETION (Attach site photographs)**
- VI. CERTIFICATION**
- I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or to those persons directly responsible for gathering the information, the information submitted is true, accurate, and complete to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of
- SIGNATURE
- PRINT/TYPE NAME
- DATE
- TITLE

# Terminating Permit Coverage

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- ➔ Until all requirements for completion are met, the project must still comply with the permit including:
  - ⇒ **The SWPPP must remain on site during working hours.**
  - ⇒ **Site inspections continue prior to, during, and after storm events.**
  - ⇒ **The June 15 Annual Certification of Compliance.**
  - ⇒ **Notice of Discharge reporting.**

# Post-Construction Meeting With Design

## ➡ Lessons Learned

- ⇒ Discussion of what worked and what didn't work.
- ⇒ Allows for incorporation of lessons learned into future designs.





# Retention Of Records

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- ➔ Retain the following records for a period of at least 3 years from the date generated:
  - ⇒ **Approved SWPPP documents and amendments**
  - ⇒ **Records of all inspections**
  - ⇒ **Compliance certifications**
  - ⇒ **Notification of Construction**
  - ⇒ **Notice of Discharge reporting**
  - ⇒ **Notice of Completion of Construction**

# Closing Comments

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- ➡ The REs SWPPP responsibilities are many!
  - ⇒ **Assistance should be obtained when necessary, especially for larger projects**
- ➡ Resources available to you
  - ⇒ DCSWC
  - ⇒ Manuals - BMP / SWPPP-WPCP / Construction
  - ⇒ Storm Water Task Force
- ➡ Be proactive, not reactive!

